



HP D8891A 14” Monitor

Chassis: JD144K-HP

Service Manual

HP D8891A 14" Monitor chassis : JD144K-HP

TABLE OF CONTENTS

	PAGE
1. PRECAUTION AND NOTICES -----	1~2
1.1. SAFETY PRECAUTIONS-----	1
1.2. PRODUCT SAFETY NOTICE-----	1
1.3. SERVICE NOTES-----	2
1.4. HIGH VOLTAGE WARNING-----	2
2. SERVICE TOOL & EQUIPMENT REQUIRED -----	3
3. SPECIFICATIONS -----	3~5
3.1. PRODUCT SPECIFICATIONS-----	3
3.2. FACTORY PRESET MODE TIMING CHART-----	4
3.3. D-SUB CONNECTOR-----	5
4. EXPLODED VIEW AND PARTS LIST -----	6~7
4.1. EXPLODED VIEW-----	6
4.2. EXPLODED VIEW PARTS LIST-----	7
5. BLOCK DIAGRAM -----	8~9
5.1. MAIN & VIDEO BOARD-----	8
5.2. SPS-----	9
6. SCHEMATIC DIAGRAM -----	10
7. WIRING DIAGRAM -----	11
8. PCB LAYOUT -----	12~13
8.1. MAIN & CRT PCB TOP VIEW-----	12
8.2. MAIN & CRT PCB BOTTOM VIEW-----	13
9. ELECTRONIC CIRCUIT DESCRIPTION -----	14~25
9.1. VIDEO PROCESSING-----	14
9.2. MICRO PROCESSOR AND POWER SAVING DETECTOR-----	15~16
9.3. HORIZONTAL OSCILLATOR & PHASE CONTROL-----	17
9.4. HORIZONTAL DEFLECTION AND PROTECTION CIRCUIT-----	18
9.5. VERTICAL DRIVE AND VERTICAL SIZE CONTROL-----	19
9.6. VERTICAL OUTPUT BLANKING AND SHIFT CONTROL-----	20
9.7. E/W CORRECTION, HORIZONTAL SIZE AND HORIZONTAL DC SHIFT-----	21
9.8. CONSTAST AND BRIGHTNESS CONTROL-----	22
9.9. SWITCHING POWER SUPPLY CIRCUIT-----	23~24
9.10. DDC FUNCTION (DISPLAY DATA CHANNEL)-----	25
10. TROUBLE SHOOTING FLOW CHART -----	26~29
10.1. NO POWER OUTPUT-----	26
10.2. NO RASTER-----	27
10.3. NO PICTURE-----	28
10.4. ONLY ONE RASTER LINE APPEARS IN HORIZONTAL DIRECTION-----	29
11. ADJUSTMENT -----	30~31
11.1. GENERAL-----	30
11.2. VOLTAGE SETTING-----	30
11.3. ADJUSTMENT OF FREE RUNNING FREQUENCY-----	30
11.4. FOCUS SETTING-----	30
11.5. ADJUSTMENT OF WHITE BALANCE (W/B)-----	31
11.6. ADJUSTMENT OF FULL WHITE BRIGHTNESS-----	31
11.7. H-CENTER SETTING-----	31
12. ELECTRICAL PARTS LIST -----	32~43

HP D8891A 14" Monitor chassis : JD144K-HP

1. PRECAUTION AND NOTICES

1.1. SAFETY PRECAUTIONS

1. Observe all caution and safety related notes located inside the display cabinet.
2. Operation of the display with the cover removed, may cause a serious, shock hazard from the display power supply. Work on the display should not be attempted by anyone who is not thoroughly familiar with the necessary precautions when working on high voltage equipment.
3. Do not install, remove or handle the picture tube in any manner unless shatter-proof goggles are worn. people who are not so equipped should be kept away while handling picture tube. Keep picture tube away from the body while handling.
4. The picture tube is constructed to limit X-RAY radiation to 0.5 mR/HR. For continued protection, use the designated replacement tube only, and adjust the voltages so that the designated maximum rating at the anode will not be exceeded.
5. Before returning a serviced display to the customer, a thorough safety test must be performed to verify that the display is safe to operate without danger or shock. Always perform an AC leakage current check on the exposed metallic parts of the cabinet, such as screw heads. Test method for current leakage is described as follow.
 - (a) Plug the AC line cord directly into rated AC outlet (do not use a line isolation transformer during this check).
 - (b) Use an AC voltmeter having 5000 ohms per volt or with more sensitivity in the following manner: Connect a 1500 ohms 10 Watt resistor, paralleled by a 0.15mfd, AC type capacitor between a known good earth ground (water pipe, conduit, etc.) and the exposed metallic parts simultaneously. Measure the AC voltage across the combination of 1500 ohms resistor and 0.15mfd capacitor.
 - (c) Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metallic part.
 - (d) Voltage measured must not exceed 2.8 volts RMS. This corresponds to 2 milliamp AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.

1.2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety visual inspections and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltages, wattage, etc. Before replacing any of these components read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire, X-RAY radiation or other hazards.

HP D8891A 14" Monitor chassis : JD144K-HP

1.3. SERVICE NOTES

1. When replacing parts or circuit boards, clamp the lead wires around terminals before soldering.
2. When replacing a high wattage resistor (more than 1W of metal oxide film resistor) in circuit board, keep the resistor about 5mm away from circuit board.
3. Keep wires away from high voltage or high temperature components.
4. Keep wires in their original position so as to reduce interference.

1.4. HIGH VOLTAGE WARNING

Operation of monitor outside of cabinet or with back removed may cause a serious shock hazard. Work on these models should only be performed by those who are thoroughly familiar with precautions necessary when working on high voltage equipment.

Exercise care when servicing this chassis with power applied. Many B plus and high voltage terminals are exposed which, if carelessly contacted, can cause serious shock or result in damage to the chassis. Maintain interconnection ground lead connections between chassis and picture tube dag when operating chassis.

Certain HV failures can increase X-ray radiation. Monitor should not be operated with HV levels exceeding the specified rating for the chassis type.

The maximum operating HV specified for the chassis used in this monitor is

24KV \pm 1KV

with a line voltage of 120/240V AC. Higher voltage may also increase possibility of failure in HV Supply.

It is important to maintain specified values of all components in the horizontal and high voltage circuits and anywhere else in the monitor that could cause a rise in high voltage or operating supply voltages. No changes should be made to the original design of the monitor. Components shown in the shaded areas on the schematic should be replaced with exact factory replacement parts. The use of unauthorized substitute parts may create a shock, fire or other hazard.

To determine the presence of high voltage, use an accurate, high impedance, HV meter connected between second anode lead and CRT dag grounding device.

When servicing the High Voltage System, remove static charge from it by connecting a 10K ohm resistor in series with an insulated wire(such as a test probe) between picture tube dag and 2nd anode lead. (AC line cord disconnected from AC power outlet).

The picture tube used in this monitor employs integral implosion protection. Replace with tube of the same type number for continued safety. Do not lift picture tube by the neck. Handle the picture tube only after discharging the high voltage completely.

HP D8891A 14" Monitor chassis : JD144K-HP

2. SERVICE TOOL & EQUIPMENT REQUIRED

1. MULTIMETER
2. OSCILLOSCOPE
3. SCREW DRIVER
4. IRON
5. ABSORBER
6. SOLDER

3. SPECIFICATIONS

3.1. PRODUCT SPECIFICATIONS

GENERAL :	AC input :	100 ~ 240 Vac, 60/50 Hz
	Power consumption :	80W (maximum)
	Operating temperature :	5°C ~ 35°C (41°F ~ 95°F)
	Weight(N.W/G.W) :	11.4/13kg
	Dimensions (W× H× D) :	356× 364× 379 mm
CRT specification :	SIZE :	14 inch diagram
	Phosphor :	P22 medium short persistence
	Dot pitch :	0.28 mm
	Deflection angle :	90 degree
	Faceplate :	Tint non-glare Anti-static treatment
Video input signal :	Amplitude :	0.7 Vp-p analog input
	Input impedance :	75 ohms
	Polarity :	positive bright
Sync input signal :	Sync level :	TTL level
	Sync polarity :	positive or negative
	Horizontal frequency :	31 ~ 50KHz
	Vertical frequency :	50 ~ 90Hz

HP D8891A 14" Monitor chassis : JD144K-HP

3.2. FACTORY PRESET MODE TIMING CHART

A. Signal Timing

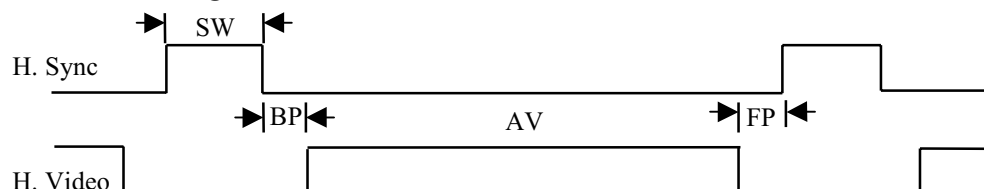
Mode	(1) VGA 640*350	(2) VGA 720*400	(3) VGA 640*480	(4) SVGA 800*600	(5) 8514A 1024*768
Resolution	640*350	720*400	640*480	800*600	1024*768
H. Sync Polarity	+	—	—	+	+
V. Sync Polarity	—	+	—	+	+
H. Frequency (KHz)	31.468	31.468	31.468	35.156	35.522
H. Period (us)	31.778	31.778	31.778	28.444	28.151
Front Porch(FP) (us)	0.636	0.636	0.636	0.666	0.178
Sync Width(SW) (us)	3.813	3.813	3.813	2.000	3.920
Back Porch(BP) (us)	1.907	1.907	1.907	3.556	1.247
Blank (us)	6.356	6.356	6.356	6.222	5.345
Active Video (us)	25.422	25.422	25.422	22.222	22.806
V. Frequency (Hz)	70.087	70.087	59.941	56.250	86.958
V. Period (ms)	14.268	14.268	16.683	17.778	11.500
Front Porch(FP) (ms)	1.175	0.381	0.317	0.028	0.014
Sync Width(SW) (ms)	0.064	0.064	0.064	0.057	0.113
Back Porch(BP) (ms)	1.907	1.112	1.049	0.626	0.563
Blank (ms)	3.146	1.557	1.430	0.711	0.690
Active Video (ms)	11.122	12.711	15.253	17.067	10.810
Interlaced	NO	NO	NO	NO	YES

Mode	(6) VESA 640*480	(7) VESA 640*480	(8) VESA 800*600	(9) VESA 800*600	(10) VESA 1024*768
Resolution	640*480	640*480	800*600	800*600	1024*768
H. Sync Polarity	—	—	+	+	—
V. Sync Polarity	—	—	+	+	—
H. Frequency (KHz)	37.860	37.500	37.879	46.875	48.363
H. Period (us)	26.413	26.667	26.400	21.333	20.667
Front Porch(FP) (us)	0.508	0.508	1.000	0.323	0.369
Sync Width(SW) (us)	1.270	2.032	3.200	1.616	2.092
Back Porch(BP) (us)	3.810	3.810	2.200	3.232	2.462
Blank (us)	5.587	6.350	6.400	5.171	4.923
Active Video (us)	20.317	20.317	20.000	16.162	15.754
V. Frequency (Hz)	72.809	75.000	60.317	75.000	60.004
V. Period (ms)	13.735	13.333	16.579	13.333	16.666
Front Porch(FP) (ms)	0.026	0.027	0.026	0.021	0.062
Sync Width(SW) (ms)	0.079	0.079	0.106	0.064	0.124
Back Porch(BP) (ms)	0.528	0.427	0.607	0.448	0.600
Blank (ms)	0.634	0.533	0.739	0.533	0.786
Active Video (ms)	12.678	12.800	15.840	12.800	15.880
Interlaced	NO	NO	NO	NO	NO

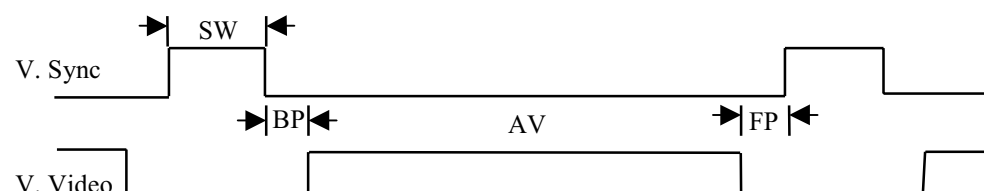
HP D8891A 14" Monitor chassis : JD144K-HP

B. Signal Timing Chart

1. Horizontal Timing Chart



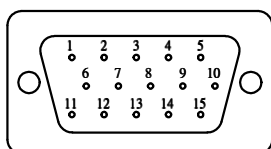
2. Vertical Timing Chart



SW = Sync Width FP = Front Porch AV = Active Video BP = Back Porch

3.3. D-SUB CONNECTOR

D-SUB 15 PIN CONNECTOR

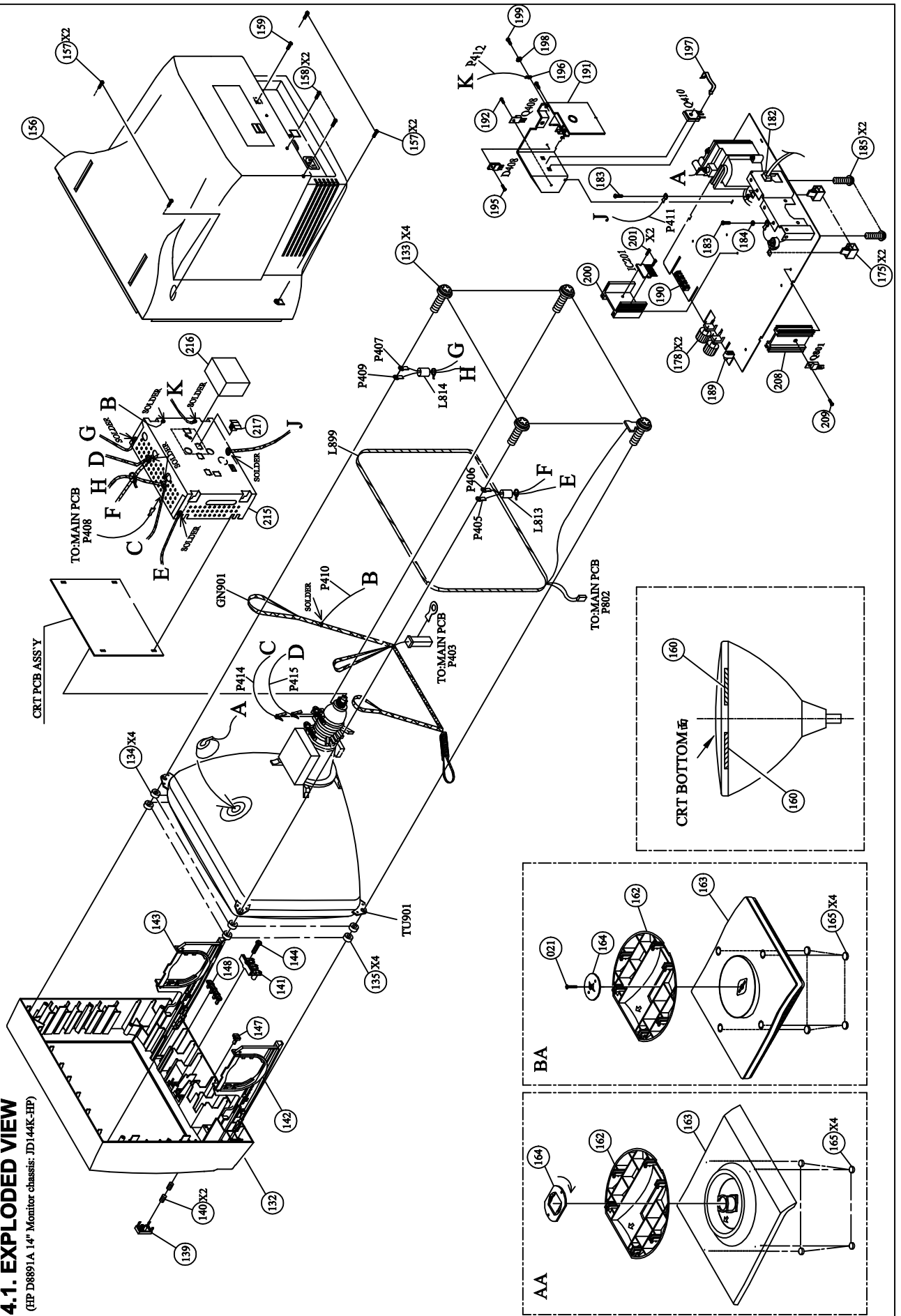


1.R	6.GND	11.GND
2.G	7.GND	12.SDA
3.B	8.GND	13.H.SYNC
4.GND	9. NC	14.V.SYNC
5.NC	10.GND	15.SCL

SIGNAL LEVEL

PIN NO.	ASSIGNMENT	SENSITIVITY
1	Red video input	0.7 Vp-p analog/75Ω
2	Green video input	0.7 Vp-p analog/75Ω
3	Blue video input	0.7 Vp-p analog/75Ω
4	Ground	
5	Self test input	Low if connected to computer
6	Red video ground	
7	Green video ground	
8	Blue video ground	
9	No connection	
10	Ground	
11	Ground	
12	SDA	
13	Horizontal sync input	TTL level
14	Vertical sync input	TTL level
15	SCL	

4.1. EXPLODED VIEW (HP D8891A 14" Monitor chassis, JD144K-HP)



HP D8891A 14" Monitor chassis : JD144K-HP

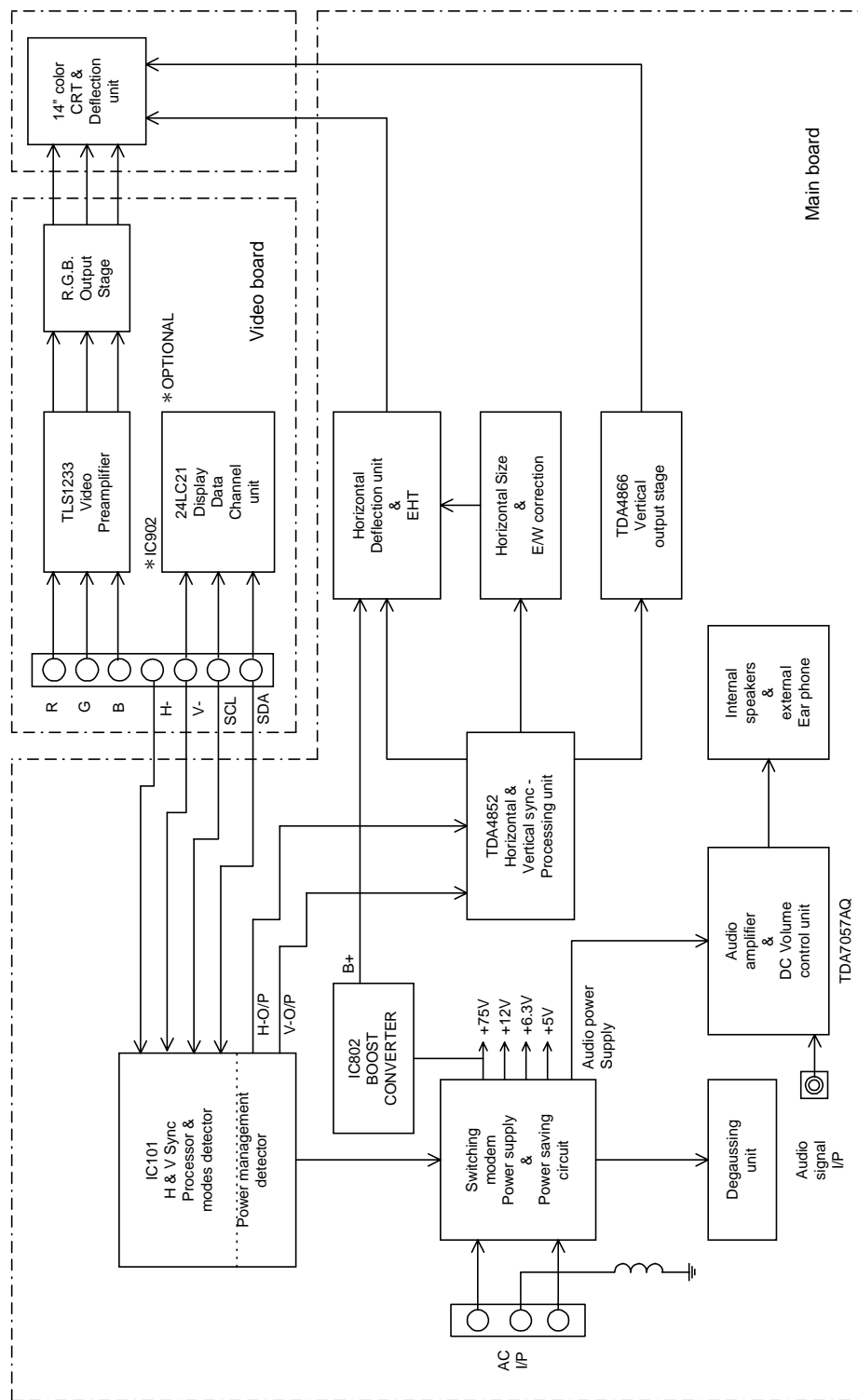
4.2. EXPLODED VIEW PARTS LIST

Ref. No.	Source	Part No.	DESCRIPTION	SPECIFICATION	Q'TY	REMARK
021	BC	2084740202	SCREW,BND T+	M4X20(BND T+)	1	
132		2024252612	PANEL	144E ABS 94V0 G7258 HP	1	
133		2080200400	SCREW,SPE T+	(SPE T+) SWCH 18A MFZN II-C	4	
134		2061402902	BUSHING	CVM4967 SBR	4	
135		2090106062	WASHER,METAL	20X6.5D 1.5T	4	
139		2046250301	PUSH BUTTON	JD144J ABS 94HB	1	
140		2105150100	SPRING	JIS SWPB ϕ 0.45	2	
141		2044250701	FUNCTION KEY	JD144K ABS 94HB	1	
142		2074151000	HOLDER	ABS 94HB	1	
143		2074151100	HOLDER	ABS 94HB	1	
144		2084740102	SCREW,BND T+	M4X10(BND T+)	1	
147		2053250400	INDICATOR	PMMA	1	
148		2053251100	INDICATOR	PMMA	1	
156		2022251801	CABI BACK	JD144V ABS 94V-0/G7258	1	
157		2084740202	SCREW,BND T+	M4X20(BND T+)	4	
158		2084730102	SCREW,BND T+	M3X10(BND T+)	2	
159		2084730102	SCREW,BND T+	M3X10(BND T+)	1	
160		2054150300	ORNAMENT	40m/mX12m/mX1.0t	2	
162		2028250101	STAND	HIPS 94 HB SWIVEL	1	
163	AA	2028250201	STAND	HIPS 94 HB	1	
163	BA	2028250401	STAND	HIPS 94 HB	1	
164	AB	2074150500	HOLDER	JD156G DURACON	1	
164	BB	2074107000	HOLDER	JK1472 DURACON M90	1	
165	BB	2039801701	LEG	JD144B SBR ϕ 11.8X5t BLACK	4	
175		2074150700	HOLDER	NYLON 66	2	
178	RA	2043250301	ROTARY KNOB	JD144J ABS 94HB G7258	2	
182		2071950300	METAL FITTG	SECC T=1.2	1	
182	RB	2071950900	METAL FITTG	SECC T=1.0	1	
183	RB	2082640102	SCREW	M4X10 P=0.7	2	
184		2080000200	SCREW,SPE	JD156H 2082640102+2092440200	1	
185	RB	2084730102	SCREW,BND T+	M3X10(BND T+)	2	
189		2074150900	HOLDER	NYLON 66	1	
190	RA	2074152000	HOLDER	NYLON 66	1	
191		2072250900	HEAT SINK	ALUMINIUM A1100P	1	
191	RB	2072251400	HEAT SINK	ALUMINIUM A1100P	1	
192	RB	2084730082	SCREW,BND T+	M3X8(BND T+)	1	
195		2084730082	SCREW,BND T+	M3X8(BND T+)	1	
196	RB	2080250100	SCREW,SPE T+	BT ϕ 3.5-20 KEY/IN	1	
197		2105250100	SPRING PLATE	SUS301 0.35t	1	
198	RB	2092440200	WASHER,OT	D1=4.3 D2=8.5 T=0.45	1	
199		2080250100	SCREW,SPE T+	BT ϕ 3.5-20 KEY/IN	1	
200	RB	2072250800	HEAT SINK	ALUMINIUM A6063S-T5	1	
201		2084730102	SCREW,BND T+	M3X10(BND T+)	2	
208	RB	2072209700	HEAT SINK	JK1565F	1	
209		2084730102	SCREW,BND T+	M3X10(BND T+)	1	
215	RA	2071650500	SHIELD PLATE	SPTE T=0.3	1	
215	RB	2071650700	SHIELD PLATE	SPTE T=0.3	1	
216	RB	2061250300	SPONGE	JD145K 50X80X35t Pu FOAM94HF-1	1	
217		2074152600	HOLDER	PC 94V0	1	

HP D8891A 14" Monitor chassis : JD144K-HP

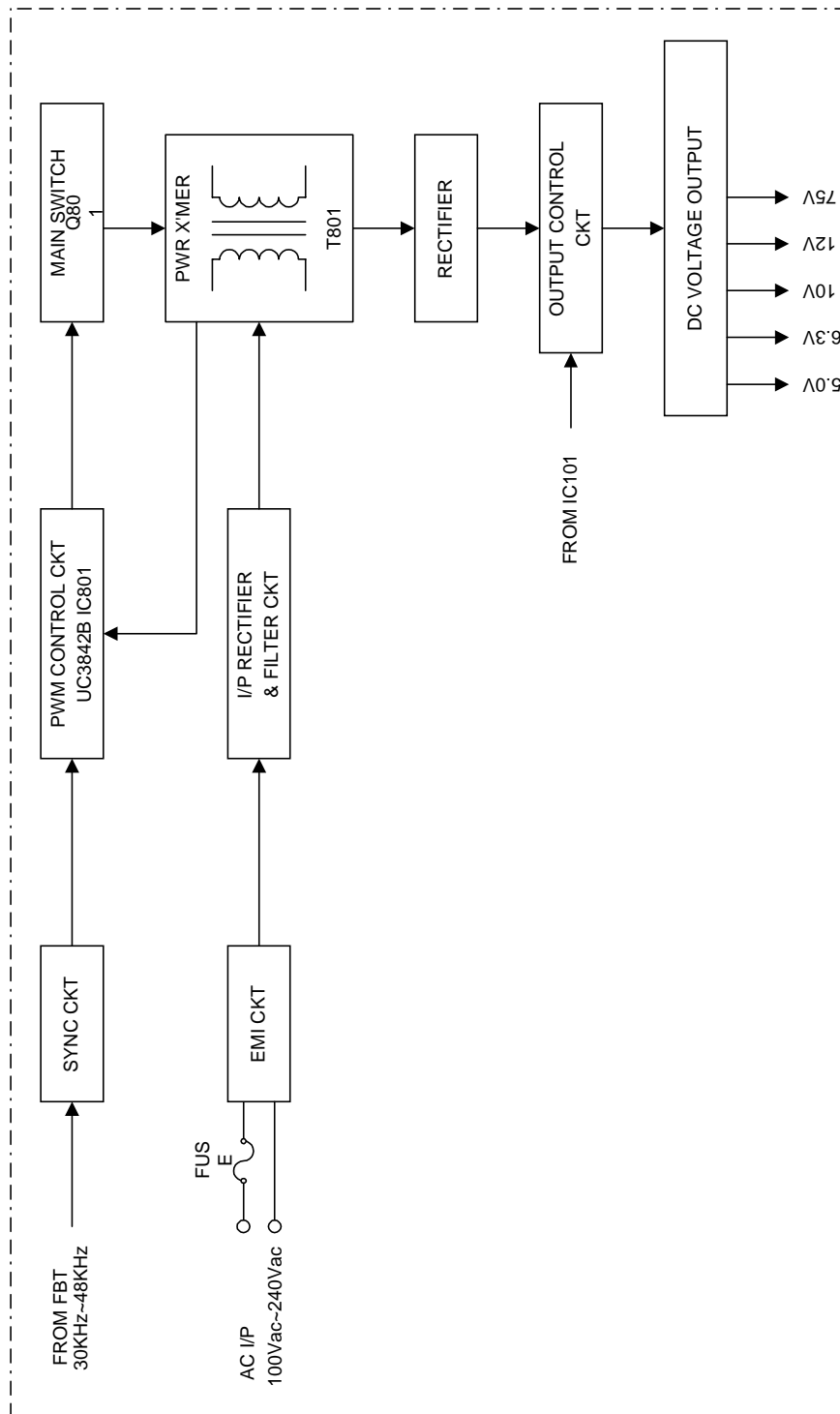
5. BLOCK DIAGRAM

5-1. MAIN & VIDEO BOARD

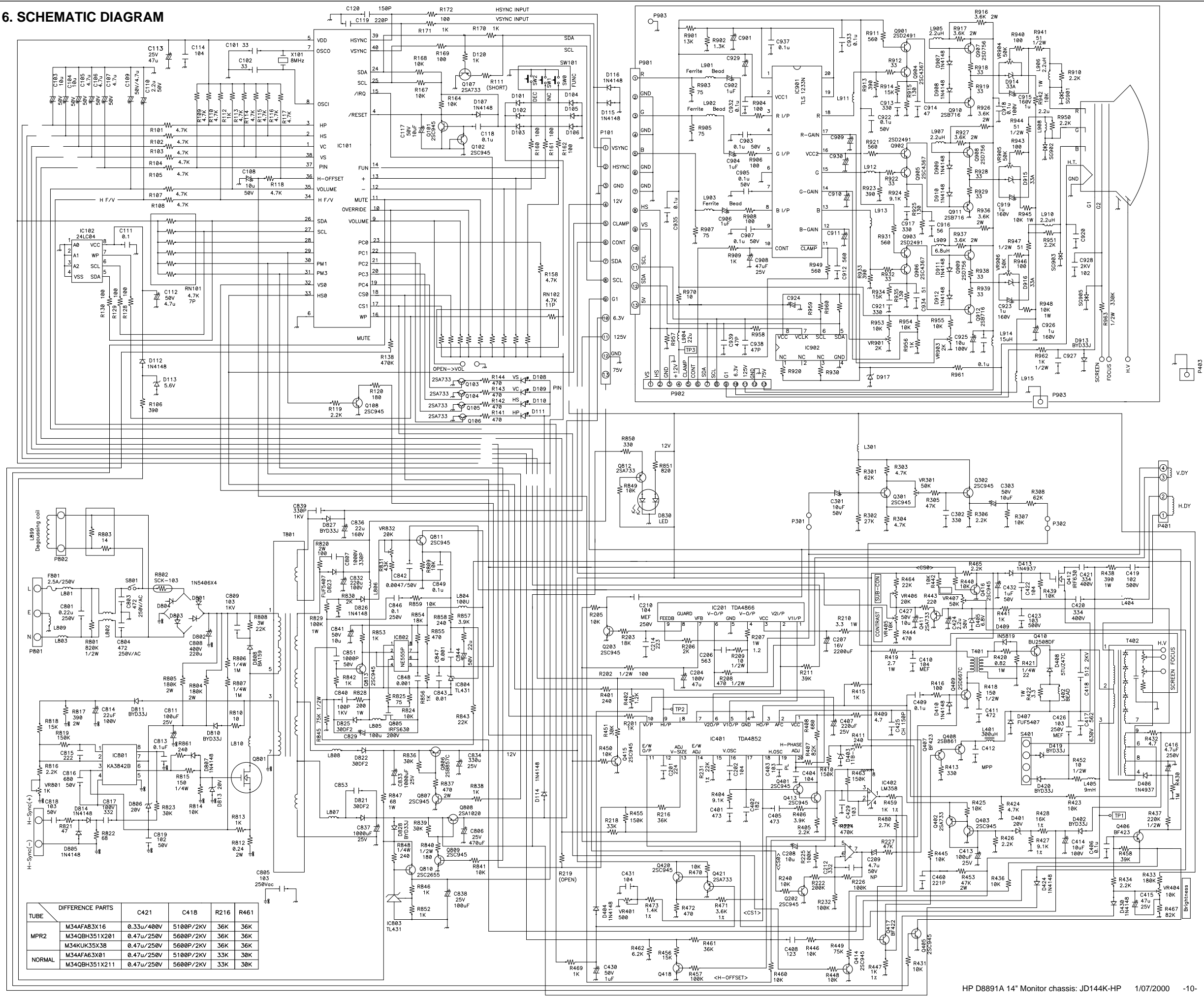


HP D8891A 14" Monitor chassis : JD144K-HP

5-2. SPS



6. SCHEMATIC DIAGRAM



7. WIRING DIAGRAM

(HP D8891A 14" Monitor chassis: JD144K-HP)

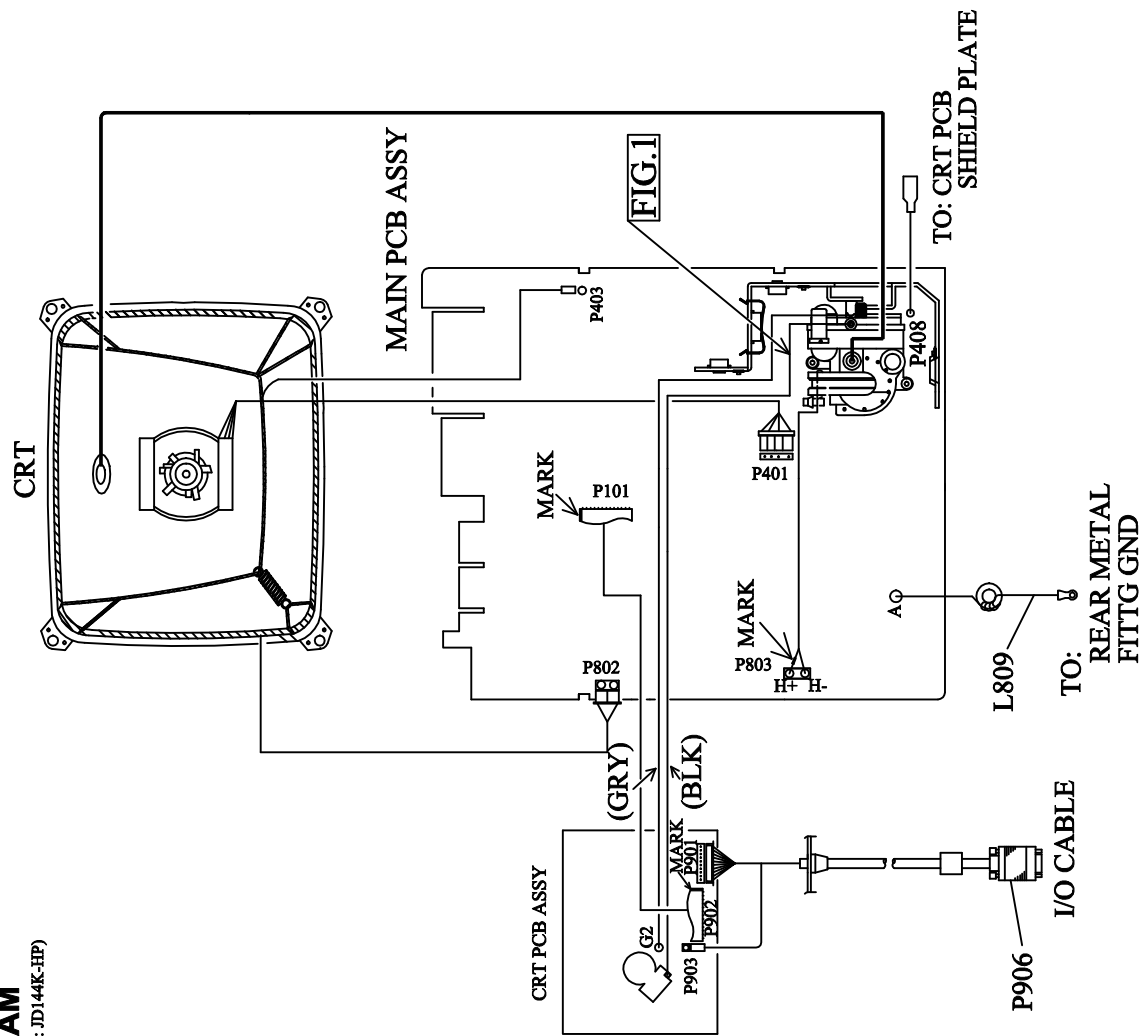
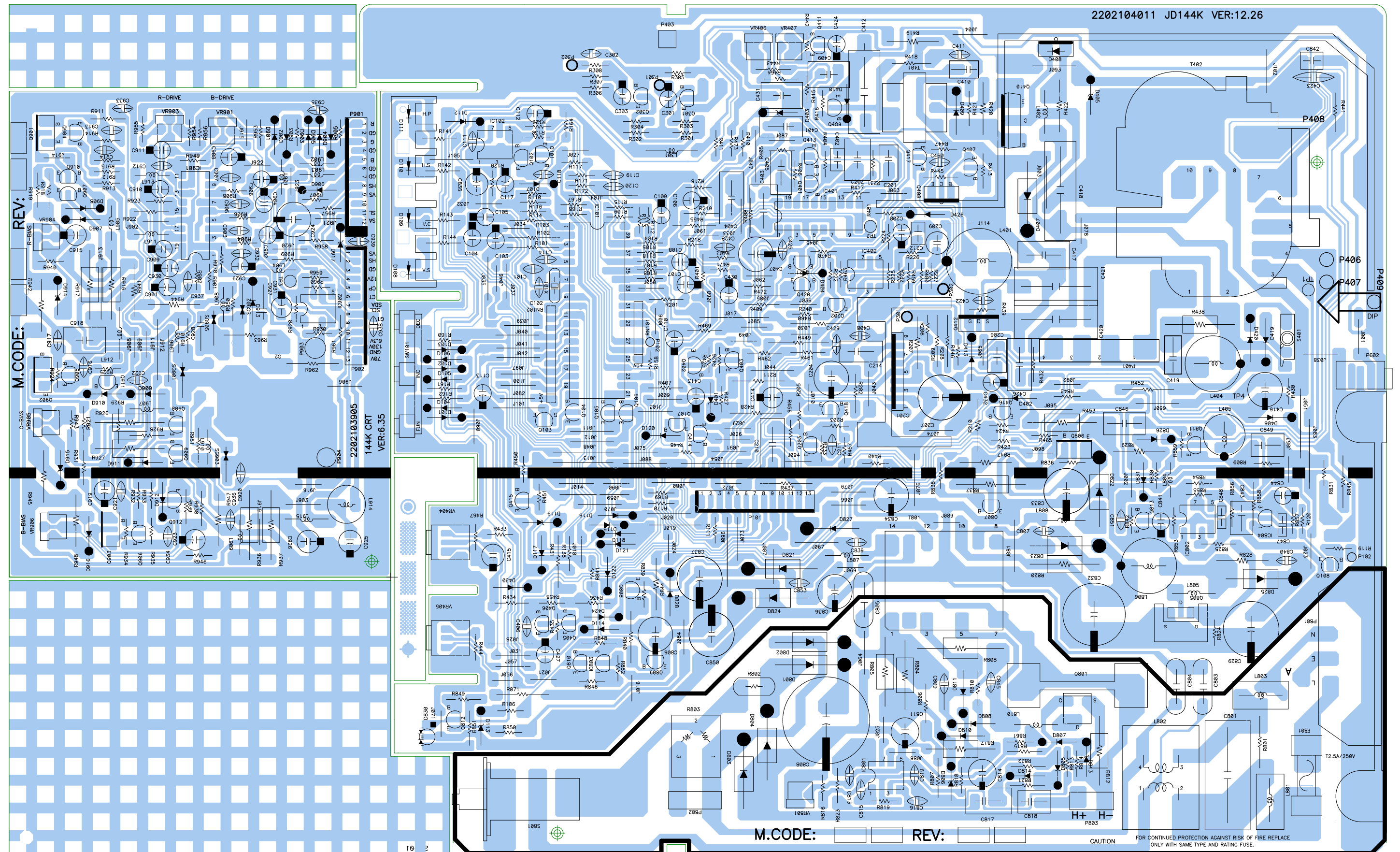


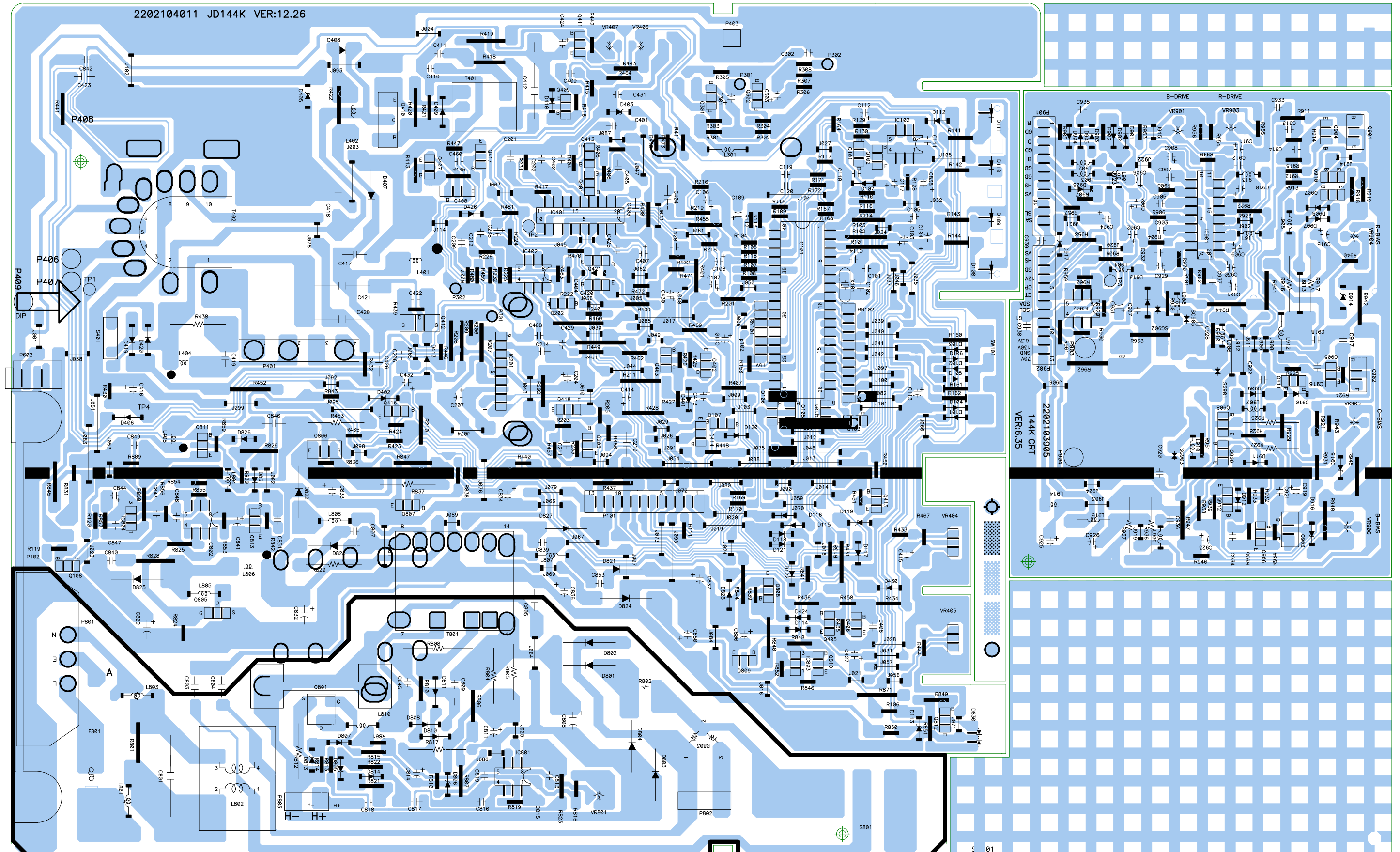
FIG.1

8. PCB LAYOUT

8.1. MAIN & CRT PCB TOP VIEW



8.2. MAIN & CRT PCB BOTTOM VIEW



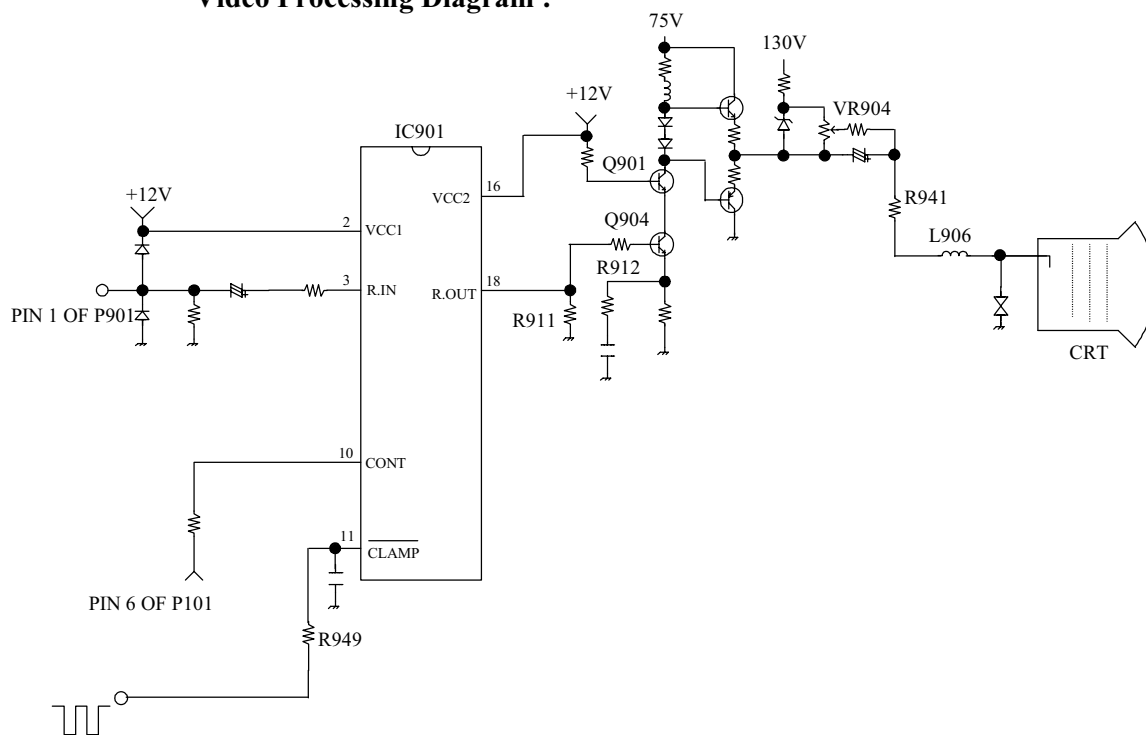
HP D8891A 14" Monitor chassis : JD144K-HP

9. ELECTRONIC CIRCUIT DESCRIPTION

9.1. VIDEO PROCESSING :

1. The diagram shows only R channel
2. The R.G.B video input signal is applied to pin3 of IC901 and amplified by the preamplifier (IC901) and output stages.
3. The output amplifier is a cascode amplifier and is formed by the transistor Q901 and Q904, output signal goes through a pull-push to drive CRT.
4. The DC level of the output can be adjusted by varying the value of VR904 and the cut-off adjustments can be executed.
5. The clamping pulse on pin11 of IC901 is derived from the negative H-sync output (pin33) of IC101 (WT6014) via R949, which holds the DC bias of the video amplifiers and CRT cathodes constant during the black level reference portion of the video waveform.
6. The contrast control (pin10 of IC901) is a dc-operated attenuator which varies the ac gain of all three amplifiers simultaneously.

Video Processing Diagram :



HP D8891A 14" Monitor chassis : JD144K-HP

9.2. MICRO PROCESSOR AND POWER SAVING DETECTOR

1. IC101 is used for discriminating sync signal and detecting power saving mode.
2. Two separated H & V sync. signal with positive or negative polarity is directly applied to pin39 and pin40 of IC101, it will be transferred to fixed negative polarity outputs (Pin 32 and Pin 33 of IC101) on both horizontal and vertical sync. signals.
3. Pin 17 to Pin 18 of IC101 are horizontal frequency discriminator pins. It can be used for phase, size, pincushion compensation and Cs capacitor control. the logical truth table is as below.

Pin	Pin 18	Pin 17
H-sync		
Hs < 36.5K	0	0
36.5K < Hs < 40K	0	1
40K < Hs < 50K	1	0
Hs > 50K	1	1

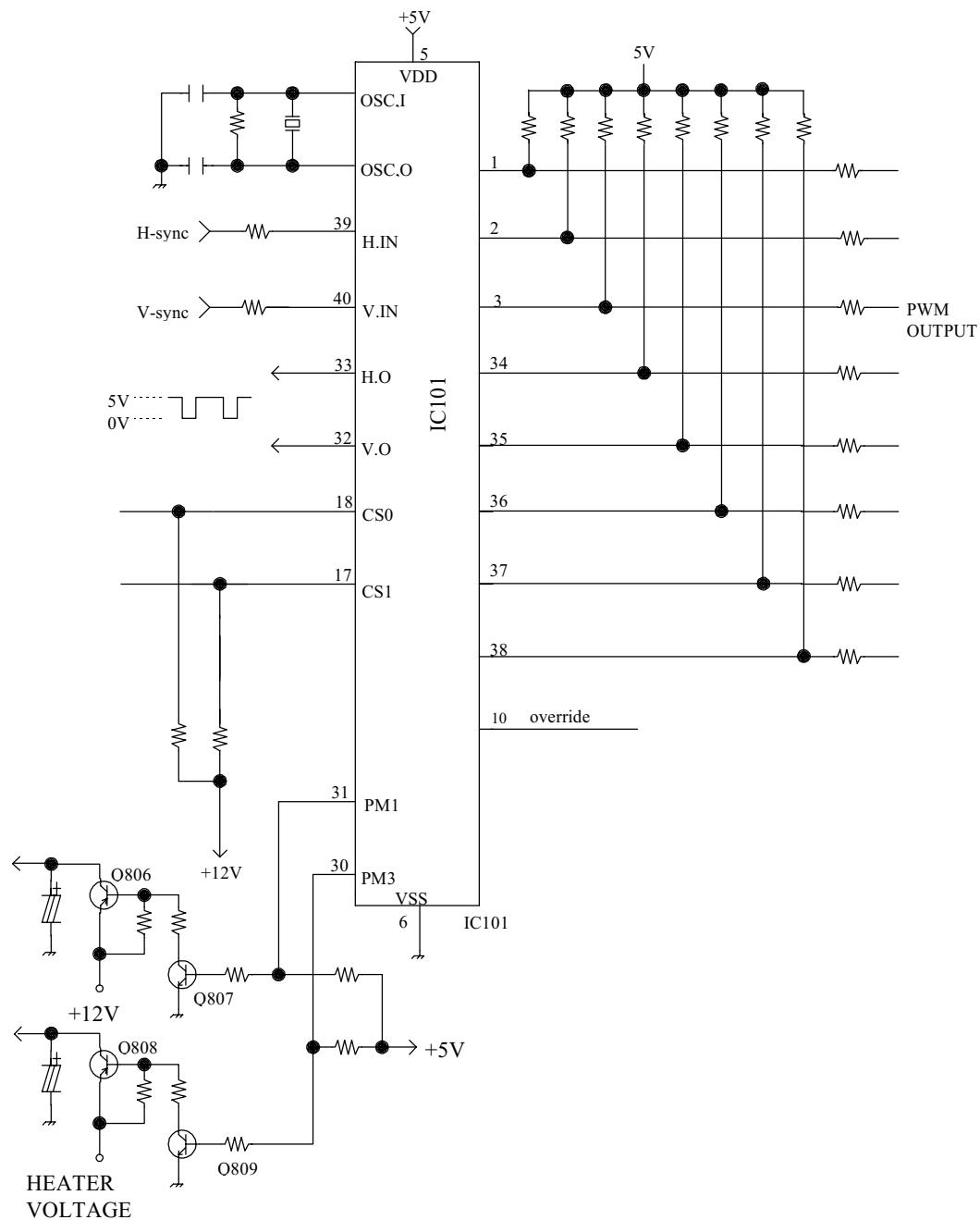
4. The tolerance for H-sync frequency discrimination is ± 0.1 KHz.
5. There are 8 PWM O/P'S of IC101, six for user control external. Two for Hor. osc and H-size compensation internal.
6. The volume control is optional for audio amplifier when ping is pull low, this function is disabled.
7. Pin 10 is in low level O/P if sync signals were not fed in when PWR ON, it is high level output when normal working. This function is used to get a lighter background in factory burn-in and that can mention the user to feed in signal.
8. The truth table of power saving detector

Mode	H-sync	V-sync	Pin 30 of IC101 (PM1)	Pin 31 of IC101 (PM3)	Q807	Q809
ON	Pulses	Pulses	1	1	ON	ON
Stand by	No Pulse	Pulses	0	1	OFF	ON
Suspend	Pulses	No Pulse	0	1	ON	OFF
Off	No Pulse	Pulses	0	0	OFF	OFF
Override	No Pulse	No pulse	1	1	ON	ON
	Manually power on					

- ※ " No Pulse " represents the frequency of Hsync or V-sync is less then or equal to 10HZ.
- ※ " Pulses " represents the frequency of H-sync is greater than or equal to 29KHz and lower than 50KHz and V-sync is greater than or equal to 40Hz and lower than 110Hz.

HP D8891A 14" Monitor chassis : JD144K-HP

Synchronous Signal Discriminator and Power Saving Detector

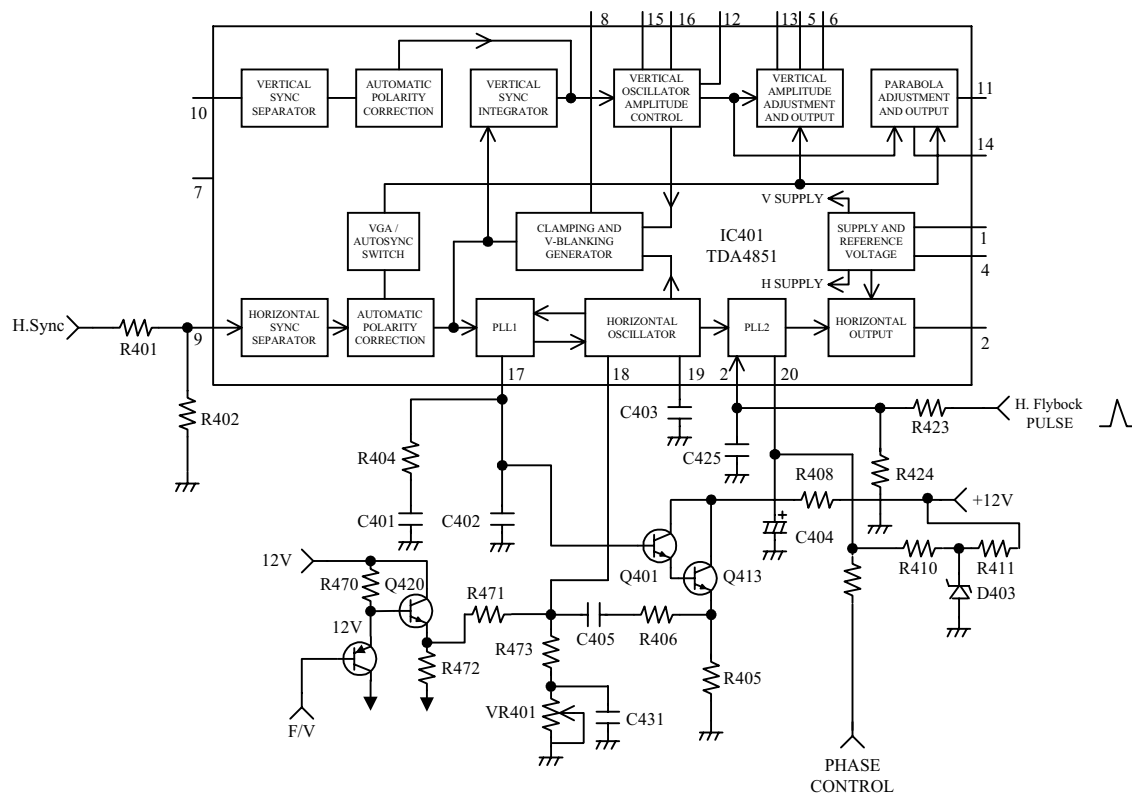


HP D8891A 14" Monitor chassis : JD144K-HP

9.3. HORIZONTAL OSCILLATOR & PHASE CONTROL

1. The internal oscillator is controlled by the PLL 1 circuitry. The PLL 1 circuitry receives the horizontal sync. signal as reference.
2. The free running frequency of horizontal oscillator can be externally controlled by current drawn from Pin 18, via VR401, R473, R471.
3. With VR401 the free running frequency can be adjusted. in VGA mode. The F/V voltage via Q420, Q421 as buffer applied to PIN 18 of IC401 for oscillator when mode change.
4. Network R404, C401, C402, Q401, Q413, C405 and R406 determines the PLL speed and catching behaviour.
5. Horizontal phase adjustment is realized by changing the phase between the horizontal flyback pulse (pin 2 of IC401) and incoming horizontal sync. (Pin 9 of IC401)
6. Phase can be externally controlled with the PLL 2 circuitry by drawn the current out or into pin 20 of IC401.

Horizontal Oscillator and Phase Control

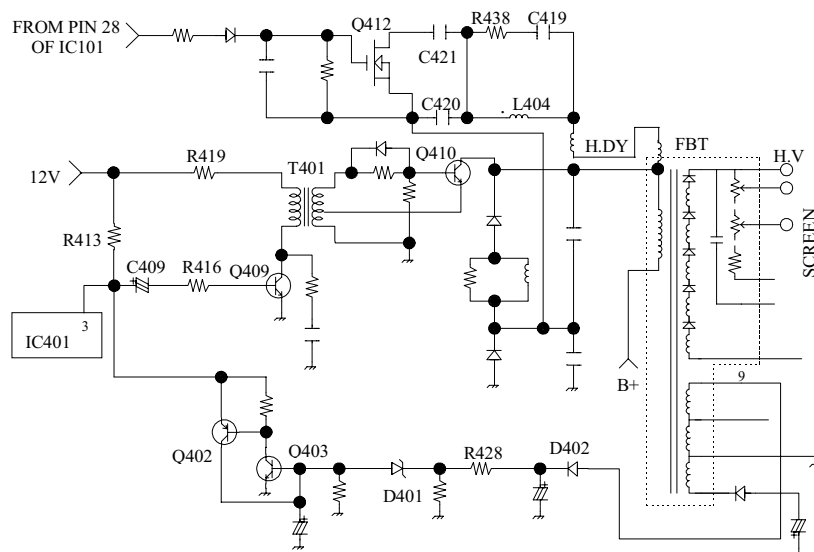


HP D8891A 14" Monitor chassis : JD144K-HP

9.4. HORIZONTAL DEFLECTION AND PROTECTION CIRCUIT

1. The horizontal drive pulse which comes from Pin 32 of IC401 directly switches off and on transistor Q409.
2. When Q409 is conducting , a current will flow in the primary winding of T401 storing energy in the transformer, when Q409 is cut-off, the transformer energy will supply the base current for the output driver Q410.
3. When Q410 is cut-off, a flyback pulse is produced at the collector of Q410, this pulse is transferred and rectified by the FBT to obtain a high voltage for anode of CRT.
4. The horizontal output pulse at Pin 3 of IC401 is amplified by Q409 and coupled by T401 to the horizontal output transistor Q410 for on-off control, thus sawtooth wave form current through the horizontal deflection yoke is obtained.
5. The function of L404 (linearity coil) is to correct the asymmetrical non-linearity of picture.
6. The function of C420 and C421 (S-correction capacitor) is to correct symmetrical non-linear distortion of equidistant lines. when the horizontal frequency is between 31.5KHz and 38 KHz, C420 and C421 are in parallel. If horizontal frequency is larger than 40KHz, only C420 is in action.
7. Protection circuit :
 - A. During normal operation, the pulse voltage at Pin 9 of FBT is about 53 Vpp.
 - B. The high voltage for anode of CRT increases, the voltage at Pin 9 of FBT also increases. when this voltage abnormally increases and switches on D401, Q403 and Q402 (Via D402 and R428), it will shorten the horizontal output pulse at Pin 3 of IC401 to GND. At this time Q409 is cut-off, it will stop the horizontal deflection action and protection function is active.

Horizontal Deflection and Protection Circuit

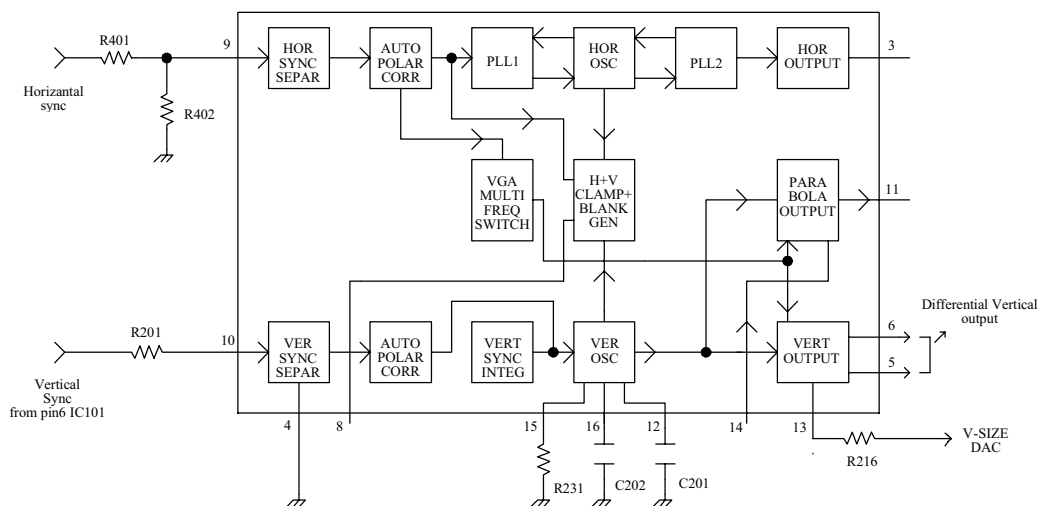


HP D8891A 14" Monitor chassis : JD144K-HP

9.5. VERTICAL DRIVE AND VERTICAL SIZE CONTROL

- I. The negative vertical sync. which comes from Pin 32 of IC101 is applied to Pin 10 of IC401 which accepts only TTL level vertical sync pulse .
- II. Vertical oscillation :
 - A. The vertical free running frequency is determined by R231 and C202 which is connected to Pin15 and Pin 16 of IC401.
 - B. The vertical sync. pulse, derived from the sync input (Pin 10 of IC401), directly synchronizes the vertical oscillator.
- III. V-size control :
 - A. With a DC Current flow in Pin 13 of IC401, the amplitude of differential output currents can be set.
 - B. Vertical size are DC current controlled, it can be varied by micro processor DAC O/P.

Vertical Drive and Vertical Size Control



HP D8891A 14" Monitor chassis : JD144K-HP

9.6. VERTICAL OUTPUT, BLANKING AND SHIFT CONTROL

- I. The differential current outputs (Pin 5 and Pin 6) of IC401 (TDA4852) are connected to the " + " and " - " inputs (Pin 1 and Pin2) of IC201 (TDA4866).
- II. The output stage IC201 (TDA 4866) is in principle a high gain operational amplifier with a buffer stage to supply the deflection current.
- III. By varying resistor R206 and R207, one can set the desired deflection current. This can be calculated with :

$$I_{defl} = I_{in (diff)} \times (R206/R207).$$

I_{defl} : the deflection current flowing through the vertical deflection yoke.

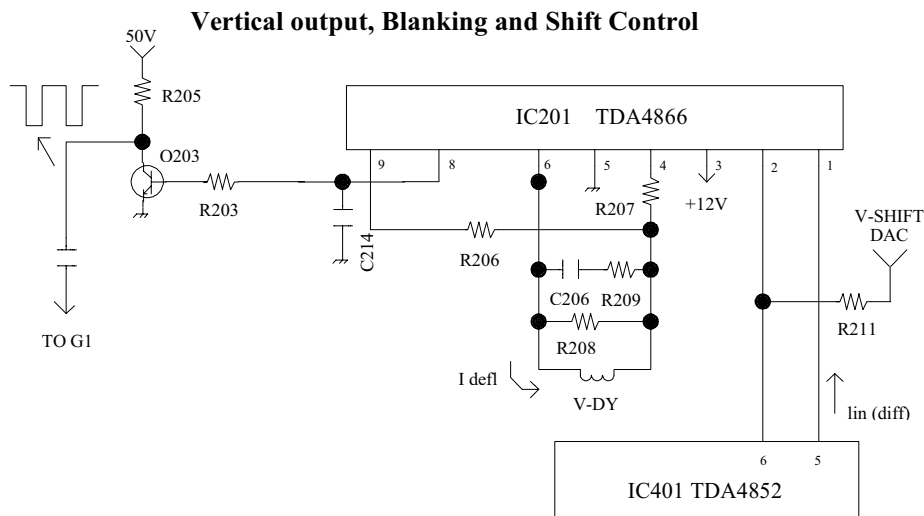
$I_{in (diff)}$: the differential input current . derived from Pin 5 and Pin 6 of IC401.

IV. Vertical shift control :

The vertical shift control is used to center the picture vertically and it can be achieved by supplying extra current to Pin 2 of IC201.

V. Vertical blanking circuit :

- A. During vertical retrace, the electron beam will sweep from the bottom to the top of the screen. The horizontal scan continues during vertical retrace. Zigzag lines will be visible on the screen. Vertical blanking circuitry is used for suppressing these lines non visible on the screen during vertical retrace.
- B. The vertical blanking pulse is obtained from Pin 8 of IC201, which is positive pulse.
- C. The negative pulse will appear at the collector of Q203. It is applied to G1 via C210. At this time CRT is cut off and no retrace lines are visible.



HP D8891A 14" Monitor chassis : JD144K-HP

9.7. E/W CORRECTION, HORIZONTAL SIZE AND HORIZONTAL DC SHIFT

I. E/W Correction :

- A. Parabolic waveform from P11 of IC401 is amplified by IC402 and AC coupled to H-size control circuit.
- B. The Amplitude of parabolic waveform from P11 of IC401 can be adjusted by controlling the output current of P13 via DAC vaule.
- C. The output current of Pin13 of IC401 increases, the amplitude of parabolic waveform also increases.

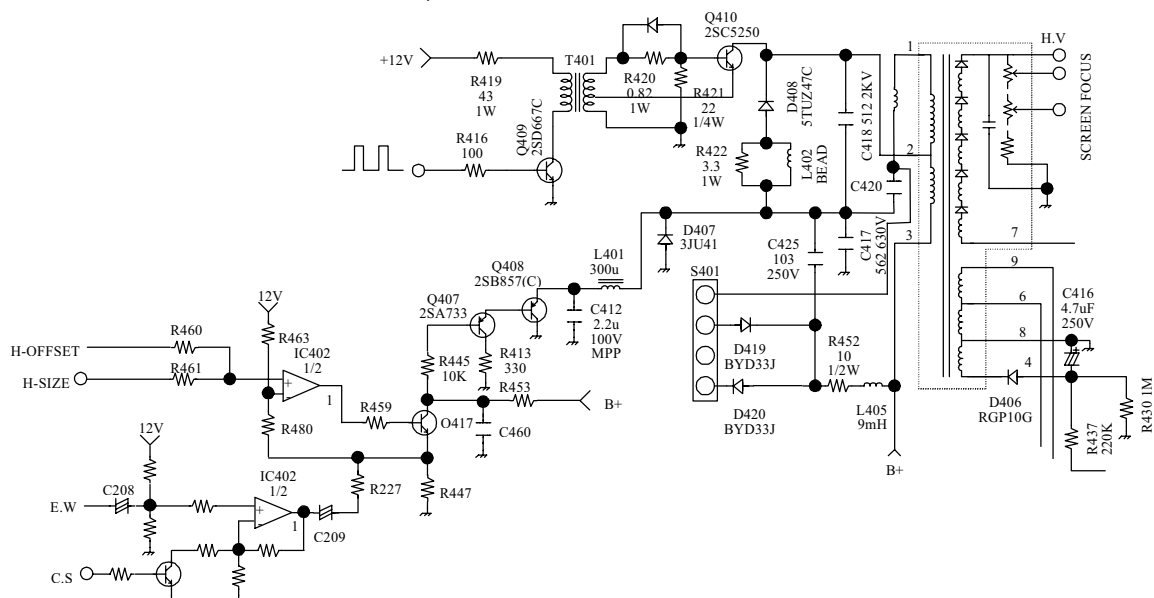
II. H-size control :

- A. The voltage across C412 can be reduced by drawing a current via Q408 and Q407, which can be controlled by conducting Q417.
- B. To increase conducting Q417 to decrease the base voltage of Q407, it will increase the current drawing by Q408 and increase the H-size. Oppositely it will decrease the H-size.

III. Horizontal DC shift :

- The raster can be centred horizontally with the horizontal DC shift.
- The DC shift circuitry is capable of sending a small adjustable DC current through the deflection coil in either direction.
- When S401 is switched to Pin 4, a small current will flow into the deflection coil via L405,R452,D420 and L404, the raster will shift right. Oppositely when S401 is switched to Pin2, the raster will shift left.

E/W Correction, Horizontal Size and Horizontal DC Shift



HP D8891A 14" Monitor chassis : JD144K-HP

9.9. SWITCHING POWER SUPPLY CIRCUIT

I. Primary side

A. Start up circuit :

1. When the monitor is switched on, the DC voltage across C808 will charge C811 via R804 and R805 until the Vcc threshold (voltage on Pin 7 of IC801) is reached.
2. IC801 start driving the MOSFET switch Q801 and the SMPS will start up, the voltage for IC801 (Pin 8) is maintained by rectifying the AC voltage across winding 3,7 of T801 by D810,R810.

B. Voltage feedback :

1. The primary sense voltage across C814 is obtained by rectifying the AC voltage on Pin3 of T801 by D811.
2. The sense voltage is applied to the error amplifier (Pin 2 of IC801) via R818.
3. With VR801 the desired secondary voltage is adjusted.

C. Current feedback :

1. The current in the source of Q801 will produce a voltage drop across R812. This voltage is compared with the error voltage and determines the on time of Q801.
2. R813 and C819 are a filter network that removes spikes on the control voltage.

D. Driving MOSFET switch Q801

1. The output Pin 6 of IC801 is a special designed to drive power MOSFET directly.
2. D807 and R861 are for quick discharge of the gate capacitance from on to turn off the switch.

E. Oscillator and synchronization :

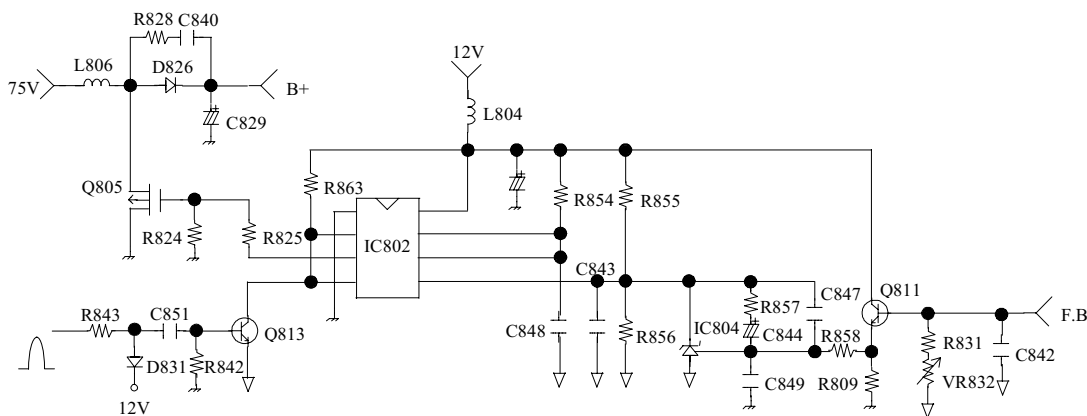
1. The oscillator in IC801 is synchronized on the horizontal flyback frequency. The trigger pulse is derived via a loop winding around the core of FBT.
2. Synchronizing is obtained by add a small flyback pulse to Pin 4 of IC801 via C818, R821, D814 and C817.
3. The free running frequency will produce when the trigger pulse is not applied, which is determined by R823 and C816.

HP D8891A 14" Monitor chassis : JD144K-HP

II. Secondary Side

A. B+ booster converter :

1. IC802 is a timer used for PWM oscillator.
2. Flyback pulse via R843 、C851 、Q813 triggered the timer, then 12V charged C843 via R854, and Pin3 has a high level O/P.
3. The voltage across on C843 reaches the thresh-hold at Pin5, C843 start to discharge via internal CKT of IC802 and Pin3 has a low level O/P.
4. The output pulse at Pin3 is used to control Q805 for energy stored in L806.
5. When Q805 is off, The energy stored in L806 is boosted upon VCC input, via D826/C829 to rectify DC voltage for deflection use.
6. The feedback voltage from H.V is derived from R831 、VR832, Q811 is used as impedance buffer for error amplifier.
7. IC804 is the error amplifier, the output of cathode was shuntted to thresh-hold control Pin5 for PWM duty control.



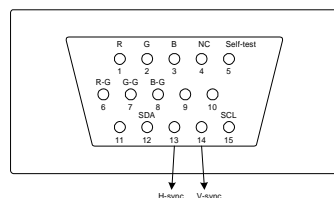
B. Power management

1. During normal operation, the base voltage of Q807 and Q809 is " High" , Q806 and Q808 are conducting. The color of LED is green.
2. In standby mode or suspend mode Q808 is still conducting, but Q806 is not conducting. At this time the base voltage of Q807 is " Low" and the color of LED is orange.
3. In off mode Q806 and Q808 are not conducting, the base voltage of Q807 and Q809 is " Low" . The color of LED is orange.

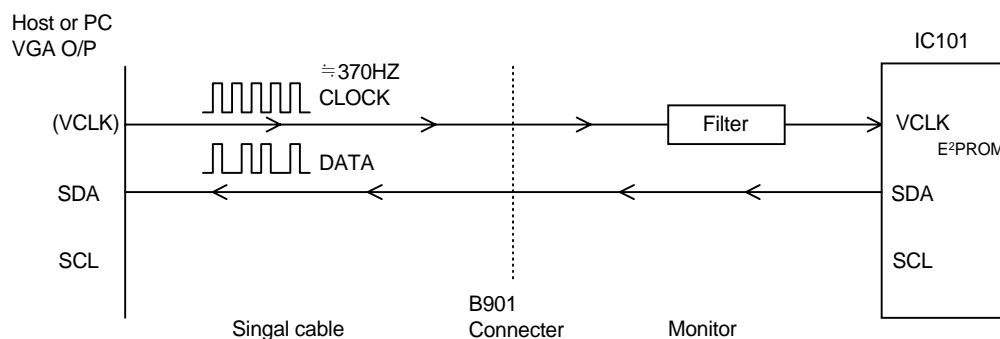
HP D8891A 14" Monitor chassis : JD144K-HP

9.10. DDC FUNCTION (DISPLAY DATA CHANNEL)

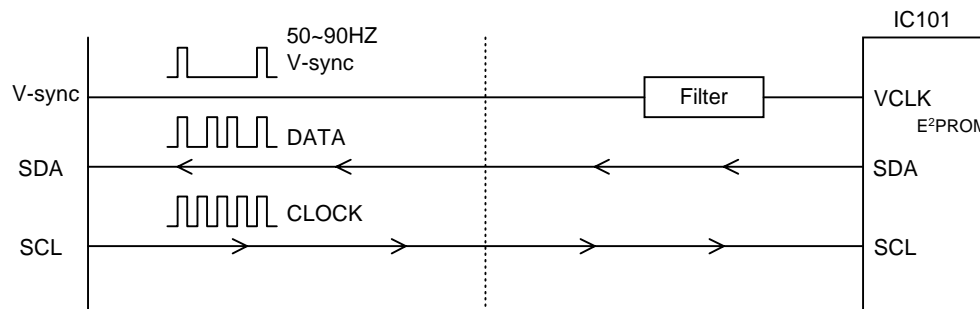
1. Software DDC is supported.
2. JD144 Support DDC1/2B to meet VESA standard.
3. DDC define a communication channel between a computer display and a host system. The channel can be used to carry information that can be used to configure the host graphics controller for optimal use of the display.
4. DDC1/2B : The display can continuously transmit its extended ID, "EDID", using DDC1. The display can also respond to a requests for "EDID". If a DDC1 capable host is detected by a DDC capable display, the display will switch to DDC2, there is no means to switch from DDC2 to DDC1 unless the power is removed.
5. Signal cable D-sub pin definition for DDC



6. When monitor works in DDC1 mode, V-sync as a clock will increase its frequency for DATA transmitting.



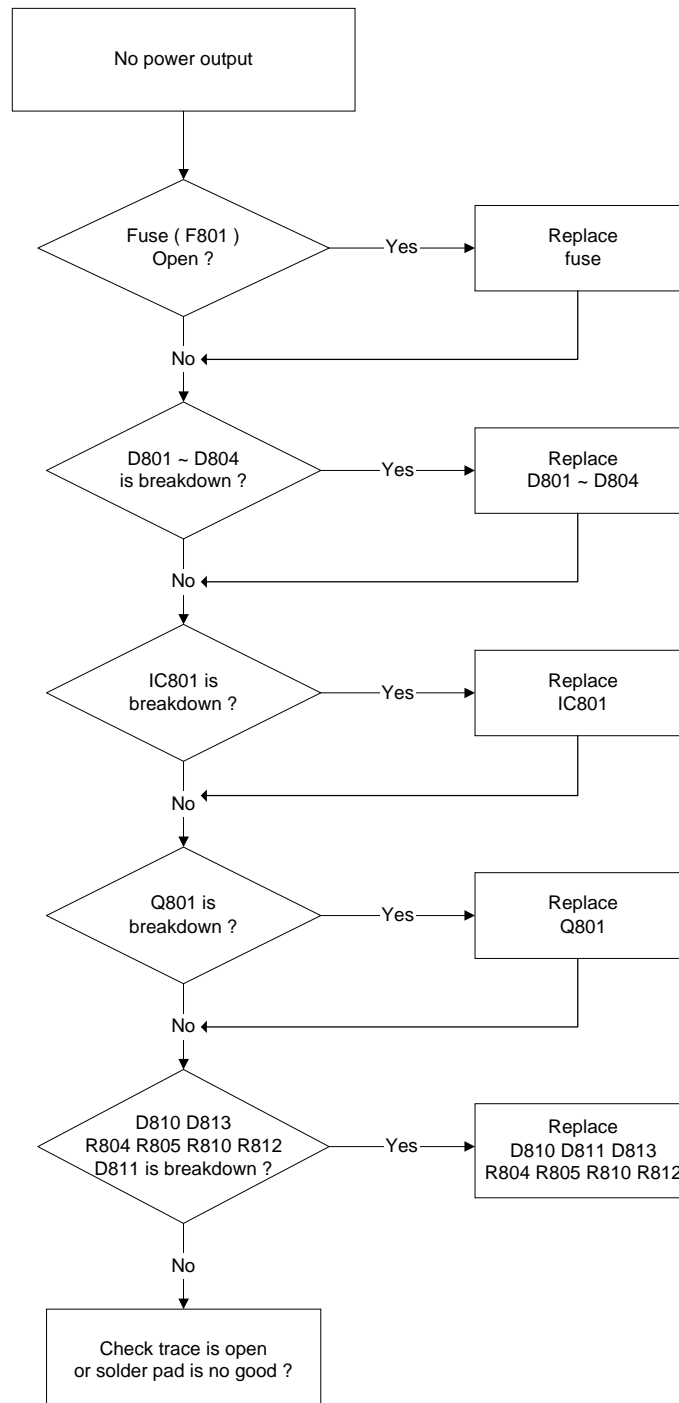
7. When monitor works in DDC2.



HP D8891A 14" Monitor chassis : JD144K-HP

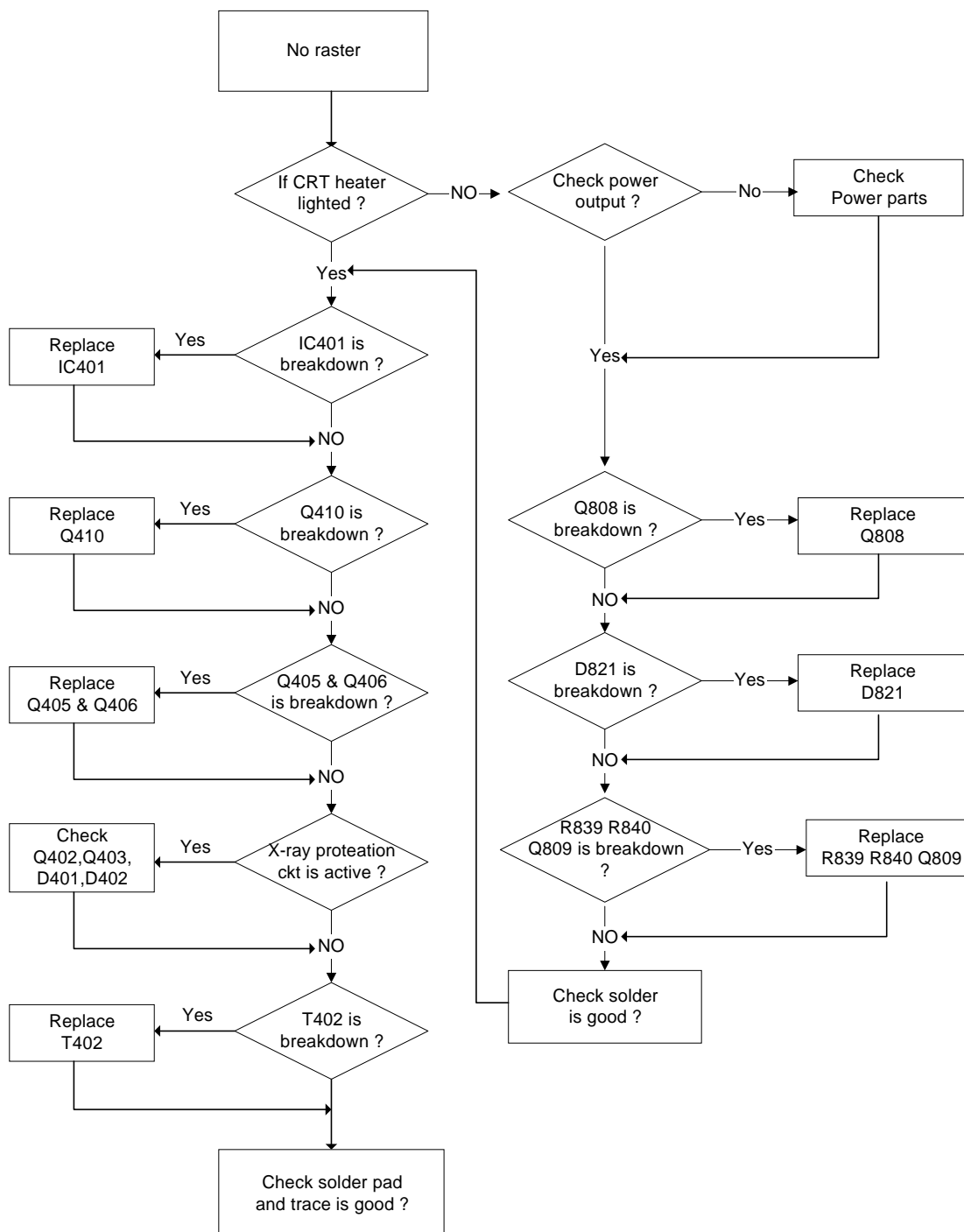
10. TROUBLE SHOOTING FLOW CHART

10.1. NO POWER OUTPUT



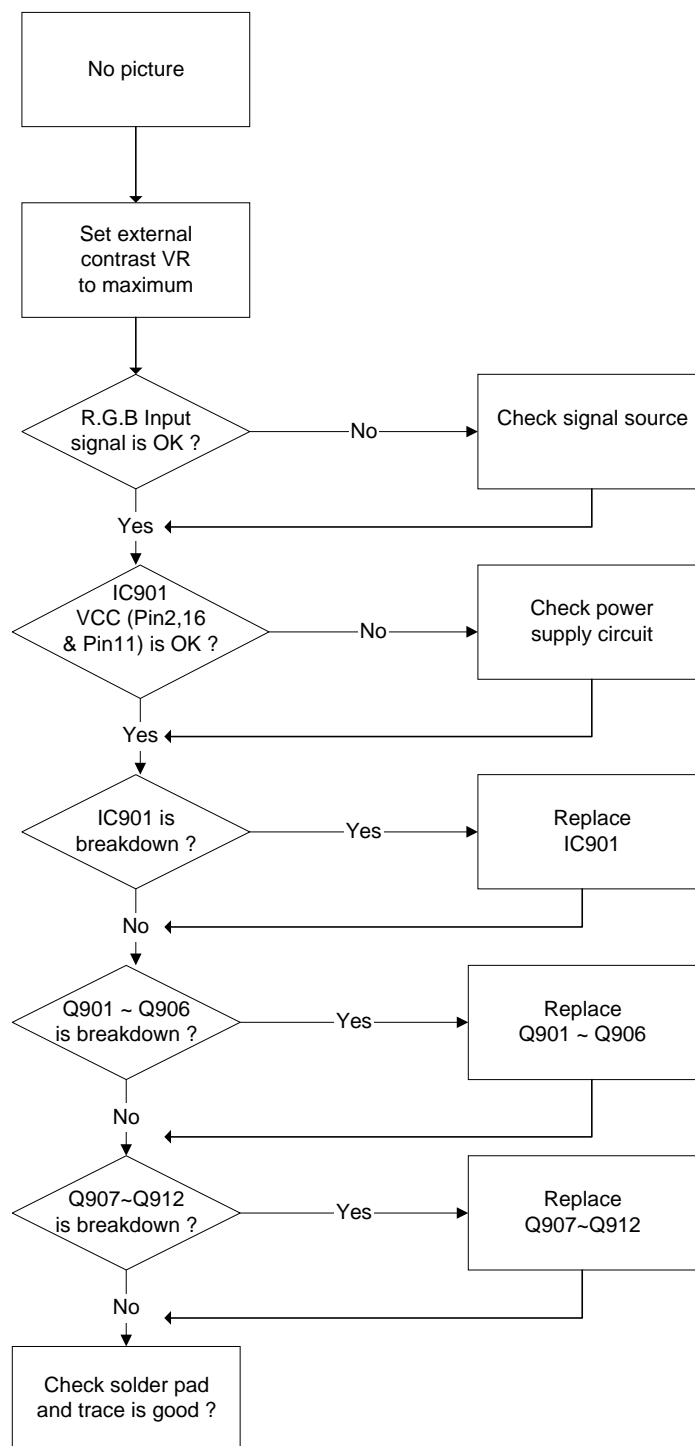
HP D8891A 14" Monitor chassis : JD144K-HP

10.2. NO RASTER



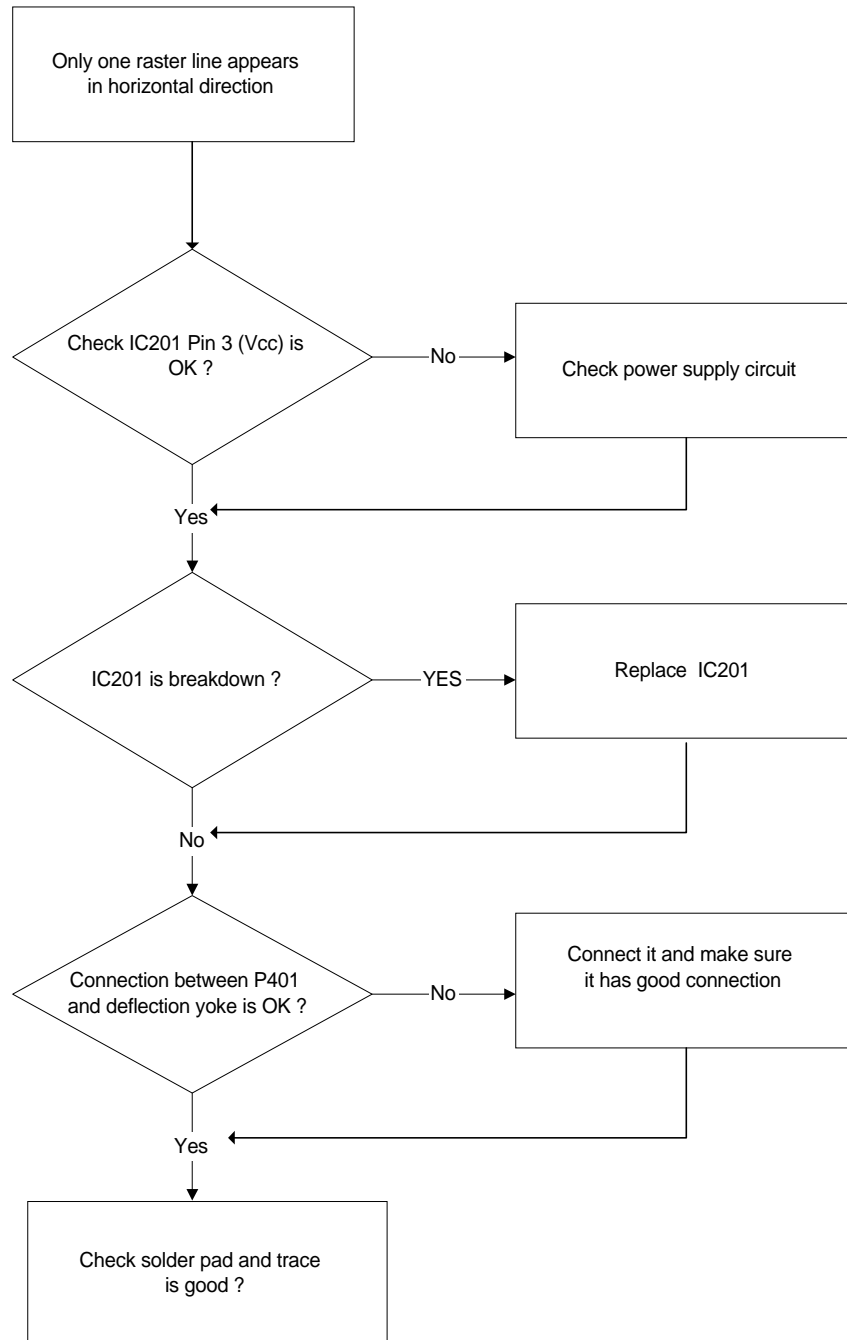
HP D8891A 14" Monitor chassis : JD144K-HP

10.3. NO PICTURE



HP D8891A 14" Monitor chassis : JD144K-HP

10.4. ONLY ON RASTER LINE APPEARS IN HORIZONTAL DIRECTION



HP D8891A 14" Monitor chassis : JD144K-HP

11. ADJUSTMENT

11.1. GENERAL :

- (a) Ac input: 100 ~ 240 Vac(\pm 10%)
- (b) Instruments:
 - (1) Signal Generators:
 - Chroma: model:2130,2135,2250
 - VG812,VG815
 - PC: it must can apply the exact timings which is listed in the engineering spec.
 - (2) Color analyzer: CA100 (Minolta)
 - (3) Digital voltmeter (or multimeter)
 - (4) Oscilloscope
- (c) It must warm up at least 30 minutes before adjustment of white balance and convergence.
- (d) It need not any signal be applied to the monitor when the free running frequency is being adjusted.

11.2. VOLTAGE SETTING :

- (a) Apply a video signal in the 640×480 with 31.468KHZ/60HZ Mode.
- (b) Select the "cross-hatch" pattern.
- (c) Set the brightness front control (VR 404) and contrast front control (VR405) to the maximum position.
- (d) Test point: TP3 on CRT board.
- (e) Adjust VR801 so that TP3 is $12 \pm 0.05V$ (11.95V ~ 12.05V).
- (f) Adjust VR832 set the HV is $24 \pm 0.1KV$ with the HV probe.

11.3. ADJUSTMENT OF FREE RUNNING FREQUENCY :

- (a) Apply a video signal in the 640× 480 with 31.46KHz / 60Hz mode.
- (b) Select the "Cross-hatch" pattern.
- (c) Set the brightness and contrast front control to the maximum position.
- (d) Connecting TP2 to GND.
- (e) Adjust VR401 so that the picture on the screen is at optimum state.
- (f) To separate TP2 from GND.

11.4. FOCUS SETTING :

- (a) Apply a video signal in the 800×600 with 46.9KHZ / 75HZ mode.
- (b) Select the character pattern ("pattern 86" in chroma2135)
- (c) Set the brightness and contrast front control to the maximum position.
- (d) Adjust the focus VR on the FBT so that the picture at 2/3 of the diagonal lines (from center to four corner) the displayed screen is as sharp as possible.

HP D8891A 14" Monitor chassis : JD144K-HP

11.5. ADJUSTMENT OF WHITE BALANCE (W/B)

11.5.1 Adjustment of cut-off

- (a) Apply a signal in the 1024×768 with 48.363KHZ / 60HZ mode.
- (b) Select the "raster" (no video signal) pattern.
- (c) Set the brightness and contrast front control to the maximum position.
- (d) Adjust the screen VR on the FBT so that the brightness reading value Y of the displayed screen is $0.6F.L \pm 0.1F.L$.
- (e) Fixed VR906
- (f) Adjust VR901 so that the reading value y of color analyzer (CA-100) is 0.303 ± 0.005 .
- (g) Adjust VR903 so that the reading value x of color analyzer (CA-100) is 0.281 ± 0.005 .
- (h) Repeat the steps (d) to (g) until the reading value of color analyzer is correct.

11.5.2 Adjustment of sub-contrast and high brightness w / b:

- (a) Apply a video signal in the 1024×768 with 48.363KHZ / 60HZ mode.
- (b) Select the "white block" pattern (50mm×50mm) .
- (c) Set the brightness front control to the center click position and the contrast front control to the maximum position.
- (d) Adjust VR406 so that the brightness reading value Y is $50 F.L \pm 1.0 F.L$.
- (e) Select the "full white" pattern.
- (f) Set the brightness to the center click position and contrast to 10 F.L .
- (g) Adjust VR904 and VR906 so that the reading value x is 0.281 ± 0.003 and y is 0.311 ± 0.003 .

11.6. ADJUSTMENT OF FULL WHITE BRIGHTNESS

- (a) Apply a video signal in the 1024×768 with 48.363KHZ / 60HZ mode.
- (b) Select the " full white" pattern.
- (c) Set the brightness front control to the center click position and the contrast front control to the maximum position.
- (d) Adjust VR407 so that the brightness reading value Y is $32 F.L \pm 1 F.L$.

11.7. H-CENTER SETTING

- (a) Apply a Video Signal in the 1024×768 with 48.363KHZ / 60HZ mode.
- (b) Select the "cross-hatch" pattern.
- (c) Set brightness front control to the maximum position.
- (d) Adjust S401 so that the "Raster" is set at the center position of the displayed screen.

HP D8891A 14" Monitor chassis : JD144K-HP

12. ELECTRICAL PARTS LIST

When you place a parts order, be sure to indicate the following data on the order:

- Location No.
- Parts No.
- Description

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION				REMARK
CRT P.C.BOARD								
C901		2333610691	CAP,MINI ELE 105'C	CE04W	10.000UF	50V	M	
C902		2333610591	CAP,MINI ELE 105'C	CE04W	1.000UF	50V	M	
C903		2281410491	CAP,CER	CK45F	0.100UF	50V	Z	
C904		2333610591	CAP,MINI ELE 105'C	CE04W	1.000UF	50V	M	
C905		2281410491	CAP,CER	CK45F	0.100UF	50V	Z	
C906		2333610591	CAP,MINI ELE 105'C	CE04W	1.000UF	50V	M	
C907		2281410491	CAP,CER	CK45F	0.100UF	50V	Z	
C908		2333447691	CAP,MINI ELE 105'C	CE04W	47.000UF	25V	M	
C909		2333610691	CAP,MINI ELE 105'C	CE04W	10.000UF	50V	M	
C910		2333610691	CAP,MINI ELE 105'C	CE04W	10.000UF	50V	M	
C911		2333610691	CAP,MINI ELE 105'C	CE04W	10.000UF	50V	M	
C912		2281156191	CAP,CER	CK45B	560.000PF	50V	K	
C913		2281133191	CAP,CER	CK45B	330.000PF	50V	K	
C914		2272151091	CAP,CER	CC45CH	51.000PF	50V	J	
C915		2333910591	CAP,MINI ELE 105'C	CE04W	1.000UF	160V	M	
C916		2272162091	CAP,CER	CC45CH	62.000PF	50V	J	
C917		2281133191	CAP,CER	CK45B	330.000PF	50V	K	
C918		2291510491	CAP,MYL	CQ92M	0.100UF	100V	K	
C919		2333910591	CAP,MINI ELE 105'C	CE04W	1.000UF	160V	M	
C921		2281133191	CAP,CER	CK45B	330.000PF	50V	K	
C922		2281410491	CAP,CER	CK45F	0.100UF	50V	Z	
C923		2333910591	CAP,MINI ELE 105'C	CE04W	1.000UF	160V	M	
C925		2333810691	CAP,MINI ELE 105'C	CE04W	10.000UF	100V	M	
C926		2333910591	CAP,MINI ELE 105'C	CE04W	1.000UF	160V	M	
C927		2283110291	CAP,CER	CK45B	1000.000PF	500V	K	
C928	RA	2285210291	CAP,CER	CK45B	1000.000PF	2KV	K	
C928	RB	2285610291	CAP,CER	CK45E	1000.000PF	2KV	Z	
C929		2333447691	CAP,MINI ELE 105'C	CE04W	47.000UF	25V	M	
C930		2333447691	CAP,MINI ELE 105'C	CE04W	47.000UF	25V	M	
C932		2281410491	CAP,CER	CK45F	0.100UF	50V	Z	
C933		2281410491	CAP,CER	CK45F	0.100UF	50V	Z	
C934		2272156091	CAP,CER	CC45CH	56.000PF	50V	J	
C935		2281410491	CAP,CER	CK45F	0.100UF	50V	Z	
C936		2291510491	CAP,CER	CQ92M	0.100UF	100V	K	
C937		2281410491	CAP,CER	CK45F	0.100UF	50V	Z	
C938		2272147091	CAP,CER	CC45CH	47.000PF	50V	J	
C939		2272147091	CAP,CER	CC45CH	47.000PF	50V	J	
D907		2363600195	DIODE,SWITCH	1N4148				
D909		2363600195	DIODE,SWITCH	1N4148				
D911		2363600195	DIODE,SWITCH	1N4148				
D913	RA	2363218495	DIODE,RECT	BYD33J			PHILIPS	
D913	RB	2363207895	DIODE,RECT	1N4937			FAGOR	
D914	RA	2363510695	DIODE,ZENER	HZ33-2	32.2-33.6V	0.5W	HITACHI	
D914	RB	2363503295	DIODE,ZENER	RD33EB3	30.90V-32.50V	0.5W		
D915	RA	2363510695	DIODE,ZENER	HZ33-2	32.2-33.6V	0.5W	HITACHI	
D915	RB	2363503295	DIODE,ZENER	RD33EB3	30.90V-32.50V	0.5W		
D916	RA	2363510695	DIODE,ZENER	HZ33-2	32.2-33.6V	0.5W	HITACHI	
D916	RB	2363503295	DIODE,ZENER	RD33EB3	30.90V-32.50V	0.5W		
IC901		2365318700	IC,LINEAR	TLS1233N			TI	
L901		2379101591	FERRITE CORE	3.5X4.5X0.8	Z=40 OHM	MIN		
L902		2379101591	FERRITE CORE	3.5X4.5X0.8	Z=40 OHM	MIN		
L903		2379101591	FERRITE CORE	3.5X4.5X0.8	Z=40 OHM	MIN		
L904	RA	2372222095	COIL,PEAKING	22.00UH	K R<1.20	I 285mA		
L904	RB	2372122095	COIL,PEAKING	TDK SPT0305SA	22.000UH	J		

HP D8891A 14" Monitor chassis : JD144K-HP

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION	REMARK
L905		2372222995	COIL,PEAKING	2.20UH K R<0.25 I 630mA	
L906		2372233995	COIL,PEAKING	3.30UH K R<0.30 I 575mA	
L907		2372222995	COIL,PEAKING	2.20UH K R<0.25 I 630mA	
L908		2372239995	COIL,PEAKING	3.90uH K R<0.32 I<555mA	
L909		2372268995	COIL,PEAKING	6.8uH K R<0.45 I<470mA	
L910		2372239995	COIL,PEAKING	3.90uH K R<0.32 I<555mA	
L912		2379101495	FERRITE CORE	3.5X9X0.8	
L914		2371131000	COIL,CHOKE	JD156G 15UF 21.5T REF	
L915		2379101495	FERRITE CORE	3.5X9X0.8	
P901		2404338011	CONNECTOR	LEOCO 2521 12 PIN P=2.5	
P903		2404340000	CONNECTOR	LEOCO 1086 1PIN P=7.5	
Q901	RA	2361411300	XISTOR,NPN A	2SD2491C	HITACHI
Q901	RB	2361412200	XISTOR,NPN A	HSD1609-D	HI-SINCE
Q901	RC	2361412400	XISTOR,NPN A	HSD1609-C	HI-SINCERITY
Q902	RA	2361411300	XISTOR,NPN A	2SD2491C	HITACHI
Q902	RB	2361412200	XISTOR,NPN A	HSD1609-D	HI-SINCE
Q902	RC	2361412400	XISTOR,NPN A	HSD1609-C	HI-SINCERITY
Q903	RA	2361411300	XISTOR,NPN A	2SD2491C	HITACHI
Q903	RB	2361412200	XISTOR,NPN A	HSD1609-D	HI-SINCE
Q903	RC	2361412400	XISTOR,NPN A	HSD1609-C	HI-SINCERITY
Q904		2361302391	XISTOR,NPN R	2SC4367 T	HITACHI
Q905		2361302391	XISTOR,NPN R	2SC4367 T	HITACHI
Q906		2361302391	XISTOR,NPN R	2SC4367 T	HITACHI
Q907		2361400591	XISTOR,NPN A	2SD756A(D)	HITACHI
Q908		2361400591	XISTOR,NPN A	2SD756A(D)	HITACHI
Q909		2361400591	XISTOR,NPN A	2SD756A(D)	HITACHI
Q910		2361200491	XISTOR,PNP A	2SB716A(D)	HITACHI
Q911		2361200491	XISTOR,PNP A	2SB716A(D)	HITACHI
Q912		2361200491	XISTOR,PNP A	2SB716A(D)	HITACHI
R901		2233413395	RES,CBN 1/4 S	RD 1/4WS 13.00K	J
R902		2233413295	RES,CBN 1/4 S	RD 1/4WS 1.30K	J
R903		2233475095	RES,CBN 1/4 S	RD 1/4WS 75.00	J
R904		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R905		2233475095	RES,CBN 1/4 S	RD 1/4WS 75.00	J
R906		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R907		2233475095	RES,CBN 1/4 S	RD 1/4WS 75.00	J
R908		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R909		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R910		2233422295	RES,CBN 1/4 S	RD 1/4WS 2.20K	J
R911		2233456195	RES,CBN 1/4 S	RD 1/4WS 560.00	J
R912		2233433095	RES,CBN 1/4 S	RD 1/4WS 33.00	J
R913		2233439195	RES,CBN 1/4 S	RD 1/4WS 390.00	J
R914		2233415395	RES,CBN 1/4 S	RD 1/4WS 15.00K	J
R915		2233413195	RES,CBN 1/4 S	RD 1/4WS 130.00	J
R916		2235536203	RES,MTL 2	RS 2W 3.60K	J
R917		2235536203	RES,MTL 2	RS 2W 3.60K	J
R918		2239233095	RES,PRE 1/4 S	RN 1/4WS 33.00	F
R919		2239233095	RES,PRE 1/4 S	RN 1/4WS 33.00	F
R921		2233456195	RES,CBN 1/4 S	RD 1/4WS 560.00	J
R922		2233433095	RES,CBN 1/4 S	RD 1/4WS 33.00	J
R923		2233439195	RES,CBN 1/4 S	RD 1/4WS 390.00	J
R924		2233491295	RES,CBN 1/4 S	RD 1/4WS 9.10K	J
R925		2233413195	RES,CBN 1/4 S	RD 1/4WS 130.00	J
R926		2235536203	RES,MTL 2	RS 2W 3.60K	J
R927		2235536203	RES,MTL 2	RS 2W 3.60K	J
R928		2239233095	RES,PRE 1/4 S	RN 1/4WS 33.00	F
R929		2239233095	RES,PRE 1/4 S	RN 1/4WS 33.00	F
R931		2233456195	RES,CBN 1/4 S	RD 1/4WS 560.00	J
R932		2233433095	RES,CBN 1/4 S	RD 1/4WS 33.00	J
R933		2233439195	RES,CBN 1/4 S	RD 1/4WS 390.00	J
R934		2233415395	RES,CBN 1/4 S	RD 1/4WS 15.00K	J
R935		2233413195	RES,CBN 1/4 S	RD 1/4WS 130.00	J
R936		2235536203	RES,MTL 2	RS 2W 3.60K	J
R937		2235536203	RES,MTL 2	RS 2W 3.60K	J

HP D8891A 14" Monitor chassis : JD144K-HP

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION	REMARK
R938		2239233095	RES,PRES 1/4 S	RN 1/4WS 33.00	F
R939		2239233095	RES,PRES 1/4 S	RN 1/4WS 33.00	F
R940		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R941		2232651095	RES,CBN 1/2	RD 1/2W 51.00	J
R942		2235410395	RES,MTL 1	RS 1W 10.00K	J
R943		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R944		2232651095	RES,CBN 1/2	RD 1/2W 51.00	J
R945		2235410395	RES,MTL 1	RS 1W 10.00K	J
R946		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R947		2232651095	RES,CBN 1/2	RD 1/2W 51.00	J
R948		2235410395	RES,MTL 1	RS 1W 10.00K	J
R949		2233456195	RES,CBN 1/4 S	RD 1/4WS 560.00	J
R950		2233420295	RES,CBN 1/4 S	RD 1/4WS 2.00K	J
R951		2233420295	RES,CBN 1/4 S	RD 1/4WS 2.00K	J
R953		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R954		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R955		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R956		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R962		2232610295	RES,CBN 1/2	RD 1/2W 1.00K	J
R963		2232633495	RES,CBN 1/2	RD 1/2W 330.00K	J
R970		2233410095	RES,CBN 1/4 S	RD 1/4WS 10.00	J
TP3		2431400300	TERMINAL	TERMINAL	
U002		2202103905	PC BOARD	JD144K 94V0 CRT 110X140 V6.35	
VR901		2225120291	RES,SEMI FIX	0.1W B 2K N	
VR903		2225120291	RES,SEMI FIX	0.1W B 2K N	
VR904		2225150391	RES,SEMI FIX	0.1W B 50K N TAPPING(V)	
VR905		2225150391	RES,SEMI FIX	0.1W B 50K N TAPPING(V)	
VR906		2225150391	RES,SEMI FIX	0.1W B 50K N TAPPING(V)	
V901	RA	2407402300	SOCKET	CRT SOCKET HPS0520-012401	
V901	RB	2407402600	SOCKET	CRT SOCKET SMK 6619	
V901	RC	2407403000	SOCKET	CRT SOCKET SFCBA0812A-SV FD	

MAIN P.C.BOARD

C101	2272133091	CAP,CER	CC45CH	33.000PF	50V	J
C102	2272133091	CAP,CER	CC45CH	33.000PF	50V	J
C103	2333610691	CAP,MINI ELE 105°C	CE04W	10.000UF	50V	M
C104	2333610691	CAP,MINI ELE 105°C	CE04W	10.000UF	50V	M
C105	2333647591	CAP,MINI ELE 105°C	CE04W	4.700UF	50V	M
C106	2333647591	CAP,MINI ELE 105°C	CE04W	4.700UF	50V	M
C107	2333647591	CAP,MINI ELE 105°C	CE04W	4.700UF	50V	M
C108	2333610691	CAP,MINI ELE 105°C	CE04W	10.000UF	50V	M
C110	2333622591	CAP,MINI ELE 105°C	CE04W	2.200UF	50V	M
C111	2281410491	CAP,CER	CK45F	0.100UF	50V	Z
C112	2333647591	CAP,MINI ELE 105°C	CE04W	4.700UF	50V	M
C113	2333447691	CAP,MINI ELE 105°C	CE04W	47.000UF	25V	M
C114	2281410491	CAP,CER	CK45F	0.100UF	50V	Z
C117	2333610691	CAP,MINI ELE 105°C	CE04W	10.000UF	50V	M
C118	2281410491	CAP,CER	CK45F	0.100UF	50V	Z
C119	2281122191	CAP,CER	CK45B	220.000PF	50V	K
C120	2281115191	CAP,CER	CK45B	150.000PF	50V	K
C201	2301122491	CAP,MTL	CF93M	0.220UF	50V	J
C202	2302210412	CAP,MTL	CF93M	0.100UF	100V	K
C204	2333847691	CAP,MINI ELE 105°C	CE04W	47.000UF	100V	M
C206	2291556391	CAP,MYL	CQ92M	0.056UF	100V	K
C207	2333322812	CAP,MINI ELE 105°C	CE04W	2200.000UF	16V	M
C208	2333610691	CAP,MINI ELE 105°C	CE04W	10.000UF	50V	M
C209	2320647591	CAP,ELE NP	CE04W	4.700UF	50V	M
C210	2303210412	CAP,MTL	CF93M	0.100UF	250V	K
C214	2302222391	CAP,MTL	CF93M	0.022UF	100V	K
C301	2333610691	CAP,MINI ELE 105°C	CE04W	10.000UF	50V	M
C302	2281133191	CAP,CER	CK45B	330.000PF	50V	K
C303	2333610691	CAP,MINI ELE 105°C	CE04W	10.000UF	50V	M
C401	2302247391	CAP,MTL	CF93M	0.047UF	100V	K

HP D8891A 14" Monitor chassis : JD144K-HP

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION	REMARK
C402		2291518291	CAP,MYL	CQ92M 1800.000PF 100V	K
C403		2295210391	CAP,PPP	CQ93T 0.010UF 100V	G
C404		2302210412	CAP,MTL	CF93M 0.100UF 100V	K
C405		2302247391	CAP,MTL	CF93M 0.047UF 100V	K
C406		2281410491	CAP,CER	CK45F 0.100UF 50V	Z
C407		2333422791	CAP,MINI ELE 105°C	CE04W 220.000UF 25V	M
C408		2291512391	CAP,MYL	CQ92M 0.012UF 100V	K
C409		2291510491	CAP,MYL	CQ92M 0.100UF 100V	K
C410		2301110491	CAP,MTL	CF93M 0.100UF 50V	J
C411		2281447291	CAP,CER	CK45F 4700.000PF 50V	Z
C412		2307122512	CAP,MTL	CF93T 2.200UF 100V	J
C413		2333410791	CAP,MINI ELE 105°C	CE04W 100.000UF 25V	M
C414		2333810691	CAP,MINI ELE 105°C	CE04W 10.000UF 100V	M
C415		2333447691	CAP,MINI ELE 105°C	CE04W 47.000UF 25V	M
C416		2334147591	CAP,MINI ELE 105°C	CE04W 4.700UF 250V	M
C417		2296656212	CAP,PPP	CQ93T 5600.000PF 630V	J
C418	EB	2298851212	CAP,PPP	CQ93T 5100.000PF 2000V	J
C418	FB	2298856212	CAP,PPP	CQ93T 5600.000PF 2000V	J
C419		2283110291	CAP,CER	CK45B 1000.000PF 500V	K
C420		2307433412	CAP,MTL	CF93T 0.330UF 400V	J
C421		2307347412	CAP,MTL	CF93T 0.470UF 250V	J
C422		2281410491	CAP,CER	CK45F 0.100UF 50V	Z
C423		2283610391	CAP,CER	CK45E 0.010UF 500V	M
C424		2333622591	CAP,MINI ELE 105°C	CE04W 2.200UF 50V	M
C425		2272115191	CAP,CER	CC45CH 150.000PF 50V	J
C426		2303210312	CAP,MTL	CF93M 0.010UF 250V	K
C427		2333610691	CAP,MINI ELE 105°C	CE04W 10.000UF 50V	M
C429		2291510391	CAP,MYL	CQ92M 0.010UF 100V	K
C430		2333610591	CAP,MINI ELE 105°C	CE04W 1.000UF 50V	M
C431		2291510491	CAP,MYL	CQ92M 0.100UF 100V	K
C432		2333610591	CAP,MINI ELE 105°C	CE04W 1.000UF 50V	M
C460		2281122191	CAP,CER	CK45B 220.000PF 50V	K
C801		2300822401	CAP,MTL	0.220UF 275V	M
C803		2287247212	CAP,CER	CK45F 4700.000PF 250VAC	M
C804		2287247212	CAP,CER	CK45F 4700.000PF 250VAC	M
C805		2287210312	CAP,CER	CK45F 0.010UF 250VA	M
C806		2333447791	CAP,MINI ELE 105°C	CE04W 470.000UF 25V	M
C807	RA	2285133191	CAP,CER	CK45B 330.000PF 1KV	K
C807	RB	2285533191	CAP,CER	CK45E 330.000PF 1KV	Z
C808		2352522714	CAP,ELE 85°C	CE69W 220.000UF 400V	M
C809		2285510301	CAP,CER	CK45E 0.010UF 1KV	Z
C811		2333410791	CAP,MINI ELE 105°C	CE04W 100.000UF 25V	M
C813		2281410491	CAP,CER	CK45F 0.100UF 50V	Z
C814		2333822691	CAP,MINI ELE 105°C	CE04W 22.000UF 100V	M
C815		2281122291	CAP,CER	CK45B 2200.000PF 50V	K
C816		2281168191	CAP,CER	CK45B 680.000PF 50V	K
C817		2296233291	CAP,PPP	CQ93T 3300.000PF 100V	J
C818		2302210391	CAP,MTL	CF93M 0.010UF 100V	K
C819		2281110291	CAP,CER	CK45B 1000.000PF 50V	K
C829		2334010712	CAP,MINI ELE 105°C	CE04W 100.000UF 200V	M
C832		2333822712	CAP,MINI ELE 105°C	CE04W 220.000UF 100V	M
C833		2333410812	CAP,MINI ELE 105°C	CE04W 1000.000UF 25V	M
C834		2333433791	CAP,MINI ELE 105°C	CE04W 330.000UF 25V	M
C836		2333922691	CAP,MINI ELE 105°C	CE04W 22.000UF 160V	M
C837		2333410812	CAP,MINI ELE 105°C	CE04W 1000.000UF 25V	M
C838		2333410791	CAP,MINI ELE 105°C	CE04W 100.000UF 25V	M
C839	RA	2285133191	CAP,CER	CK45B 330.000PF 1KV	K
C839	RB	2285533191	CAP,CER	CK45E 330.000PF 1KV	Z
C840	RA	2285110191	CAP,CER	CK45B 100.000PF 1KV	K
C840	RB	2285510191	CAP,CER	CK45E 100.000PF 1KV	Z
C841		2333610691	CAP,MINI ELE 105°C	CE04W 10.000UF 50V	M
C842		2296247291	CAP,PPP	CQ93T 4700.000PF 100V	J
C843		2302210391	CAP,MTL	CF93M 0.010UF 100V	K
C844		2333622691	CAP,MINI ELE 105°C	CE04W 22.000UF 50V	M

HP D8891A 14" Monitor chassis : JD144K-HP

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION				REMARK
C846		2303210412	CAP,MTL	CF93M	0.100UF	250V	K	
C847		2296210291	CAP,PPP	CQ93T	1000.000PF	100V	J	
C848		2296210291	CAP,PPP	CQ93T	1000.000PF	100V	J	
C849		2302210412	CAP,MTL	CF93M	0.100UF	100V	K	
C851		2281110291	CAP,CER	CK45B	1000.000PF	50V	K	
D101		2363600195	DIODE,SWITCH	1N4148				
D102		2363600195	DIODE,SWITCH	1N4148				
D103		2363600195	DIODE,SWITCH	1N4148				
D104		2363600195	DIODE,SWITCH	1N4148				
D105		2363600195	DIODE,SWITCH	1N4148				
D106		2363600195	DIODE,SWITCH	1N4148				
D107		2363600195	DIODE,SWITCH	1N4148				
D108		2363703200	LED	L-53GD			KINGBRIG	
D109		2363703200	LED	L-53GD			KINGBRIG	
D110		2363703200	LED	L-53GD			KINGBRIG	
D111		2363703200	LED	L-53GD			KINGBRIG	
D112		2363600195	DIODE,SWITCH	1N4148				
D113		2363513295	DIODE,ZENER	HZ6A-3	5.4-5.7V	0.5W	HITACHI	
D114		2363600195	DIODE,SWITCH	1N4148				
D115		2363600195	DIODE,SWITCH	1N4148				
D116		2363600195	DIODE,SWITCH	1N4148				
D120		2233410295	RES,CBN 1/4 S	RD 1/4WS	1.00K		J	
D401	RA	2363512195	DIODE,ZENER	HZ20-3	20.2-21.1V	0.5W	HITACHI	
D401	RB	2363508095	DIODE,ZENER	MTZJ22A			ROHM	
D401	RC	2363516395	DIODE,ZENER	TZX20C			TELEFUNKEN	
D402	RA	2363218495	DIODE,RECT	BYD33J			PHILIPS	
D402	RB	2363207895	DIODE,RECT	1N4937			FAGOR	
D403	RA	2363514295	DIODE,ZENER	HZ11B-3	10.7-11.1V	0.5W	HITACH	
D403	RB	2363508195	DIODE,ZENER	MTZ11B				
D404		2363600195	DIODE,SWITCH	1N4148				
D405		2363511795	DIODE,ZENER	RD6.8EB3	6.66-7.01V	0.5W		
D406	RA	2363218495	DIODE,RECT	BYD33J			PHILIPS	
D406	RB	2363207895	DIODE,RECT	1N4937			FAGOR	
D407	RA	2363213912	DIODE,RECT	FUF5407	3.0A	800V	FAGOR	
D407	RB	2363213995	DIODE,RECT	FUF5407	3.0A	800V	FAGOR	
D408	RA	2363213800	DIODE,RECT	5TUZ47C	TR 1US	1 5A	TOSHIBA	
D408	RB	2363214300	DIODE,RECT	FMP-G2FS			SANKEN	
D409		2363216695	DIODE,RECT	1N5819			TSC	
D410		2363600195	DIODE,SWITCH	1N4148				
D413		2363207895	DIODE,RECT	1N4937			FAGOR	
D419	RA	2363218495	DIODE,RECT	BYD33J			PHILIPS	
D419	RB	2363207895	DIODE,RECT	1N4937			FAGOR	
D420	RA	2363218495	DIODE,RECT	BYD33J			PHILIPS	
D420	RB	2363207895	DIODE,RECT	1N4937			FAGOR	
D424		2363600195	DIODE,SWITCH	1N4148				
D430		2363600195	DIODE,SWITCH	1N4148				
D801	RA	2363216812	DIODE,RECT	1N5406			TSC	
D801	RB	2363216295	DIODE,RECT	1N5406	3A	600V	FAGOR	
D802	RA	2363216812	DIODE,RECT	1N5406			TSC	
D802	RB	2363216295	DIODE,RECT	1N5406	3A	600V	FAGOR	
D803	RA	2363216812	DIODE,RECT	1N5406			TSC	
D803	RB	2363216295	DIODE,RECT	1N5406	3A	600V	FAGOR	
D804	RA	2363216812	DIODE,RECT	1N5406			TSC	
D804	RB	2363216295	DIODE,RECT	1N5406	3A	600V	FAGOR	
D805		2363600195	DIODE,SWITCH	1N4148				
D806	RA	2363512195	DIODE,ZENER	HZ20-3	20.2-21.1V	0.5W	HITACHI	
D806	RB	2363508095	DIODE,ZENER	MTZJ22A			ROHM	
D806	RC	2363507995	DIODE,ZENER	MTZJ22B			ROHM	
D806	RD	2363516395	DIODE,ZENER	TZX20C			TELEFUNKEN	
D807		2363600195	DIODE,SWITCH	1N4148				
D808		2363201195	DIODE,RECT	BA159			FAGOR	
D810	RA	2363218495	DIODE,RECT	BYD33J			PHILIPS	
D810	RB	2363207895	DIODE,RECT	1N4937			FAGOR	
D811	RA	2363218495	DIODE,RECT	BYD33J			PHILIPS	

HP D8891A 14" Monitor chassis : JD144K-HP

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION	REMARK
D811	RB	2363207895	DIODE,RECT	1N4937	FAGOR
D813	RA	2363512195	DIODE,ZENER	HZ20-3 20.2-21.1V 0.5W	WHITACHI
D813	RB	2363508095	DIODE,ZENER	MTZJ22A	ROHM
D813	RC	2363507995	DIODE,ZENER	MTZJ22B	ROHM
D813	RD	2363516395	DIODE,ZENER	TZX20C	TELEFUNKEN
D814		2363600195	DIODE,SWITCH	1N4148	
D821	RA	2363214712	DIODE,RECT	30DF2	IR
D821	RB	2363213012	DIODE,RECT	MR852 3A 200V	FAGOR
D822	RA	2363214712	DIODE,RECT	30DF2	IR
D822	RB	2363218012	DIODE,RECT	HER304E6	TSC
D823		2363213912	DIODE,RECT	FUF5407 3.0A 800V	FAGOR
D825	RA	2363214712	DIODE,RECT	30DF2	IR
D825	RB	2363212900	DIODE,RECT	BYM36C	PHILIPS
D825	RC	2363208712	DIODE,RECT	3JU41	
D826		2363600195	DIODE,SWITCH	1N4148	
D827	RA	2363218495	DIODE,RECT	BYD33J	PHILIPS
D827	RB	2363207895	DIODE,RECT	1N4937	FAGOR
D828	RA	2363218495	DIODE,RECT	BYD33J	PHILIPS
D828	RB	2363207895	DIODE,RECT	1N4937	FAGOR
D830		2363703400	LED	KINGBRIGHT L-59YGW	
FS801		2407200791	HOLDER,FUSE	FC-05C	
FS802		2407200791	HOLDER,FUSE	FC-05C	
F801	RA	2213125254	FUSE	BEL 5ST 2.5A 250V	
F801	RB	2213125200	FUSE	BEL 5TT 2.5A 250V	
F801	RC	2213125208	FUSE	LITTLE 21802.5 2.5A	250V
F801	RD	2213125209	FUSE	S506 2.5A/250V	BUSSMANN
IC101	RA	2365318600	IC,LINEAR	WT6014	WELTREND
IC101	RB	2365409300	IC,DIGITAL	JD144KJEAN003A	WELTREND
IC101	RC	2365411700	IC,DIGITAL	JEAN 006/JD144	WELTREND
IC102		2365409000	IC,DIGITAL	AT24CO4-10PC	ATMEL
IC201		2365316900	IC,LINEAR	TDA4866	PHILIPS
IC401		2365316800	IC,LINEAR	TDA4852	PHILIPS
IC402	RA	2365310800	IC,LINEAR	LM358P	TI
IC402	RB	2365305100	IC,LINEAR	LM358N	NATIONAL
IC801		2365311500	IC,LINEAR	KA3842B	FAIRCHILD
IC802		2365201710	IC,MONO	NE555P	TI
IC803	RA	2365307391	IC,LINEAR	TL431CLP	MOTOROLA
IC803	RB	2365319391	IC,LINEAR	TL431CLP	TI
IC804	RA	2365307391	IC,LINEAR	TL431CLP	MOTOROLA
IC804	RB	2365319391	IC,LINEAR	TL431CLP	TI
L401		2371105100	COIL,CHOKE	JD144K 300UH 18X18 0.1*30	
L402		2379101495	FERRITE CORE	3.5X9X0.8	
L404		2371130700	COIL,CHOKE	LINEARITY COIL 24.5T 12.4U 0A	
L405		2371131500	COIL,CHOKE	JD156H 9mH/2UEW0.2 φ 440.5T	
L801		2371110400	COIL,CHOKE	HUA HJC- B	
L802		2371154100	COIL,CHOKE	TOKIN SS28V-08350(O)	
L803		2371110400	COIL,CHOKE	HUA HJC- B	
L804		2372110195	COIL,PEAKING	TDK SPT0305SA 100.000UH J T52	
L805		2379101495	FERRITE CORE	3.5X9X0.8	
L806		2371104900	COIL,CHOKE	JD144K 1.2mH 0.4X144.5T	
L807		2379101495	FERRITE CORE	3.5X9X0.8	
L808		2379101495	FERRITE CORE	3.5X9X0.8	
L809		2379101900	FERRITE CORE	CORE(u=1500)/1015#18 G&Y 270L	
L810		2379101495	FERRITE CORE	3.5X9X0.8	
L812		2379102000	FERRITE CORE	TR-11.8X7.3X15(J70) MAGNET	
P101		2427412440	WIRE HARNES	13P/13P 1007#26 L=300 B-1N	
P102		2422325300	WIRE,VINYL	UL1007#24(7M) 250L ORA K:K	
P301		2422320600	WIRE,VINYL	UL1007#24(TM) 200L BLU K:K	
P302		2422315400	WIRE,VINYL	UL1007#24(TM) 150L YEL K:K	
P401		2404340003	CONNECTOR	LEOCO 1086 4PIN P=8.0	
P403		2404340000	CONNECTOR	LEOCO 1086 1PIN P=7.5	
P404		2427307003	LUG W/WIRE	LRTC4000/LFTC187F 1015#22 180L	
P408		2427307004	LUG W/WIRE	9193TCB/LFTC187F 1015#22 150L	
P801	RA	2407411400	SOCKET	POWER SOCKET SC-9R SUPERCPN	

HP D8891A 14" Monitor chassis : JD144K-HP

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION	REMARK
P801	RB	2407411300	SOCKET	POWER SOCKET SS-7B-1C RONGFONG	
P801	RC	2407411200	SOCKET	POWER SOCKRT 7014 I-SHENG	
P802		2404340001	CONNECTOR	LEOCO 1086 2PIN P=10	
Q101	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q101	RB	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q102	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q102	RB	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q103	RA	2361111491	XISTOR,PNP R	2PA733P	PHILIPS
Q103	RB	2361100491	XISTOR,PNP R	2SA733(P)	NEC
Q104	RA	2361111491	XISTOR,PNP R	2PA733P	PHILIPS
Q104	RB	2361100491	XISTOR,PNP R	2SA733(P)	NEC
Q105	RA	2361111491	XISTOR,PNP R	2PA733P	PHILIPS
Q105	RB	2361100491	XISTOR,PNP R	2SA733(P)	NEC
Q106	RA	2361111491	XISTOR,PNP R	2PA733P	PHILIPS
Q106	RB	2361100491	XISTOR,PNP R	2SA733(P)	NEC
Q107	RA	2361111491	XISTOR,PNP R	2PA733P	PHILIPS
Q107	RB	2361100491	XISTOR,PNP R	2SA733(P)	NEC
Q108	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q108	RB	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q108	RC	2361315991	XISTOR,NPN R	H945P	HITACHI
Q202	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q202	RB	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q202	RC	2361315991	XISTOR,NPN R	H945P	HITACHI
Q203	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q203	RB	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q203	RC	2361315991	XISTOR,NPN R	H945P	HITACHI
Q301		2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q302		2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q401	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q401	RB	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q401	RC	2361315991	XISTOR,NPN R	H945P	HITACHI
Q402	RA	2361111491	XISTOR,PNP R	2PA733P	PHILIPS
Q402	RB	2361100491	XISTOR,PNP R	2SA733(P)	NEC
Q403	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q403	RB	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q403	RC	2361315991	XISTOR,NPN R	H945P	HITACHI
Q405	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q405	RB	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q405	RC	2361315991	XISTOR,NPN R	H945P	HITACHI
Q406		2361211291	XISTOR,PNP A	BF423	TOSHIBA
Q407		2361211291	XISTOR,PNP A	BF423	TOSHIBA
Q408		2361210400	XISTOR,PNP A	2SB861WC	HITACHI
Q409		2361401991	XISTOR,NPN A	2SD667(C)	HITACHI
Q410	RA	2361302800	XISTOR,NPN R	BU2508DF	PHILIPS
Q410	RB	2361316400	XISTOR,NPN R	BU2508DX	PHILIPS
Q410	RC	2361316500	XISTOR,NPN R	2SC5447	HITACHI
Q411	RA	2361111491	XISTOR,PNP R	2PA733P	PHILIPS
Q411	RB	2361100491	XISTOR,PNP R	2SA733(P)	NEC
Q412	RA	2361605900	FET,N-CH	IRF630A	FAIRCHILD
Q412	RB	2361604700	FET,N-CH	FS10UM-5	MITSUBIS
Q412	RC	2361603100	FET,N-CH	2SK2134	NEC
Q412	RD	2361605700	FET,N-CH	BUZ32	SIEMENS
Q412	RE	2361601800	FET,N-CH	IRF630	FAIRCHILD
Q413	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q413	RB	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q413	RC	2361315991	XISTOR,NPN R	H945P	HITACHI
Q414	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q414	RB	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q415	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q415	RB	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q416	RA	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q416	RB	2361315991	XISTOR,NPN R	H945P	HITACHI
Q417		2361314791	XISTOR,NPN R	BF422	TOSHIBA
Q418	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS

HP D8891A 14" Monitor chassis : JD144K-HP

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION	REMARK
Q418	RB	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q418	RC	2361315991	XISTOR,NPN R	H945P	HITACHI
Q420	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q420	RB	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q421	RA	2361111491	XISTOR,PNP R	2PA733P	PHILIPS
Q421	RB	2361100491	XISTOR,PNP R	2SA733(P)	NEC
Q801	RA	2361605000	FET,N-CH	2SK2645-01M	FUJI
Q801	RB	2361604300	FET,N-CH	FS7KM-12	MITSUBIS
Q805	RA	2361605900	FET,N-CH	IRF630A	FAIRCHILD
Q805	RB	2361604700	FET,N-CH	FS10UM-5	MITSUBIS
Q805	RC	2361604200	FET,N-CH	IRFS630	SAMSUNG
Q805	RD	2361604600	FET,N-CH	FS10KM-5	MITSUBIS
Q805	RE	2361601800	FET,N-CH	IRF630	FAIRCHILD
Q805	RF	2361606500	FET,N-CH	IRFS634A	FAIRCHILD
Q806	RA	2361200600	XISTOR,PNP A	2SB857(C)	HITACHI
Q806	RB	2361211000	XISTOR,PNP A	2SB857C	HI-SINCE
Q807	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q807	RB	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q807	RC	2361315991	XISTOR,NPN R	H945P	HITACHI
Q808		2361111191	XISTOR,PNP R	2SA1020(Y)	TOSHIBA
Q809	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q809	RB	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q809	RC	2361315991	XISTOR,NPN R	H945P	HITACHI
Q810		2361303291	XISTOR,NPN R	2SC2655(Y)	TOSHIBA
Q811	RA	2361302591	XISTOR,NPN R	2SC945(P)	NEC
Q811	RB	2361315991	XISTOR,NPN R	H945P	HITACHI
Q812	RA	2361111491	XISTOR,PNP R	2PA733P	PHILIPS
Q812	RB	2361100491	XISTOR,PNP R	2SA733(P)	NEC
Q813	RA	2361316191	XISTOR,NPN R	2PC945P	PHILIPS
Q813	RB	2361302591	XISTOR,NPN R	2SC945(P)	NEC
RN101		2259647207	RES,NETWORKS	RG PITCH=2.54 7P 1/8W 4.7K J	
RN102		2259647211	RES,NETWORKS	RG PITCH=2.54 11P 1/8W 4.7K J	
R101		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R102		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R103		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R104		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R105		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R106		2233439195	RES,CBN 1/4 S	RD 1/4WS 390.00	J
R108		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R109		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R110		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R112		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R114		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R115		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R116		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R117		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R118		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R119		2233422295	RES,CBN 1/4 S	RD 1/4WS 2.20K	J
R120		2233418195	RES,CBN 1/4 S	RD 1/4WS 180.00	J
R128		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R129		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R130		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R138		2233447495	RES,CBN 1/4 S	RD 1/4WS 470.00K	J
R141		2233447195	RES,CBN 1/4 S	RD 1/4WS 470.00	J
R142		2233447195	RES,CBN 1/4 S	RD 1/4WS 470.00	J
R143		2233447195	RES,CBN 1/4 S	RD 1/4WS 470.00	J
R144		2233447195	RES,CBN 1/4 S	RD 1/4WS 470.00	J
R158		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R160		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R161		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R162		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R164		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R167		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R168		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J

HP D8891A 14" Monitor chassis : JD144K-HP

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION	REMARK
R169		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R170		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R171		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R172		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R201		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R202		2232610195	RES,CBN 1/2	RD 1/2W 100.00	J
R203		2233418395	RES,CBN 1/4 S	RD 1/4WS 18.00K	J
R205		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R206		2239220015	RES,PRE 1/4 S	RN 1/4WS 2.00K	F
R207		2235412995	RES,MTL 1	RS 1W 1.20	J
R208		2232647195	RES,CBN 1/2	RD 1/2W 470.00	J
R209		2232610095	RES,CBN 1/2	RD 1/2W 10.00	J
R210		2235433995	RES,MTL 1	RS 1W 3.30	J
R211		2233430395	RES,CBN 1/4 S	RD 1/4WS 30.00K	J
R216		2233433395	RES,CBN 1/4 S	RD 1/4WS 33.00K	J
R218		2233433395	RES,CBN 1/4 S	RD 1/4WS 33.00K	J
R222		2233420495	RES,CBN 1/4 S	RD 1/4WS 200.00K	J
R224		2233447495	RES,CBN 1/4 S	RD 1/4WS 470.00K	J
R225		2233410495	RES,CBN 1/4 S	RD 1/4WS 100.00K	J
R226		2233410495	RES,CBN 1/4 S	RD 1/4WS 100.00K	J
R227		2233447395	RES,CBN 1/4 S	RD 1/4WS 47.00K	J
R231		2239222025	RES,PRE 1/4 S	RN 1/4WS 22.00K	F
R232		2233410495	RES,CBN 1/4 S	RD 1/4WS 100.00K	J
R240		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R301		2233462395	RES,CBN 1/4 S	RD 1/4WS 62.00K	J
R302		2233427395	RES,CBN 1/4 S	RD 1/4WS 27.00K	J
R303		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R304		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R305		2233447395	RES,CBN 1/4 S	RD 1/4WS 47.00K	J
R306		2233422295	RES,CBN 1/4 S	RD 1/4WS 2.20K	J
R307		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R308		2233462395	RES,CBN 1/4 S	RD 1/4WS 62.00K	J
R401		2233424195	RES,CBN 1/4 S	RD 1/4WS 240.00	J
R402		2233412295	RES,CBN 1/4 S	RD 1/4WS 1.20K	J
R404		2233491295	RES,CBN 1/4 S	RD 1/4WS 9.10K	J
R405		2233422295	RES,CBN 1/4 S	RD 1/4WS 2.20K	J
R406		2233439295	RES,CBN 1/4 S	RD 1/4WS 3.90K	J
R407		2233482395	RES,CBN 1/4 S	RD 1/4WS 82.00K	J
R408		2233468195	RES,CBN 1/4 S	RD 1/4WS 680.00	J
R409		2233447995	RES,CBN 1/4 S	RD 1/4WS 4.70	J
R410		2233415495	RES,CBN 1/4 S	RD 1/4WS 150.00K	J
R411		2233424195	RES,CBN 1/4 S	RD 1/4WS 240.00	J
R413		2233433195	RES,CBN 1/4 S	RD 1/4WS 330.00	J
R415		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R416		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R418		2232615195	RES,CBN 1/2	RD 1/2W 150.00	J
R419		2235427995	RES,MTL 1	RS 1W 2.70	J
R420		2235482895	RES,MTL 1	RS 1W 0.82	J
R421		2233422095	RES,CBN 1/4 S	RD 1/4WS 22.00	J
R422		2235433995	RES,MTL 1	RS 1W 3.30	J
R423		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R424		2233447295	RES,CBN 1/4 S	RD 1/4WS 4.70K	J
R425		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R426		2233422295	RES,CBN 1/4 S	RD 1/4WS 2.20K	J
R427		2239291015	RES,PRE 1/4 S	RN 1/4WS 9.10K	F
R428		2239216025	RES,PRE 1/4 S	RN 1/4WS 16.00K	F
R430		2233410595	RES,CBN 1/4 S	RD 1/4WS 1.00M	J
R431		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R432		2233447995	RES,CBN 1/4 S	RD 1/4WS 4.70	J
R433		2233418495	RES,CBN 1/4 S	RD 1/4WS 180.00K	J
R434		2233422295	RES,CBN 1/4 S	RD 1/4WS 2.20K	J
R436		2233491295	RES,CBN 1/4 S	RD 1/4WS 9.10K	J
R437		2235422495	RES,MTL 1	RS 1W 220.00K	J
R438		2235439195	RES,MTL 1	RS 1W 390.00	J

HP D8891A 14" Monitor chassis : JD144K-HP

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION	REMARK
R439		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K J	
R440		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K J	
R441		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K J	
R442		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K J	
R443		2233422195	RES,CBN 1/4 S	RD 1/4WS 220.00 J	
R444		2233447195	RES,CBN 1/4 S	RD 1/4WS 470.00 J	
R445		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K J	
R446		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K J	
R447		2239210015	RES,PRES 1/4 S	RN 1/4WS 1.00K F	
R448		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K J	
R449		2233475395	RES,CBN 1/4 S	RD 1/4WS 75.00K J	
R450		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K J	
R451		2233430395	RES,CBN 1/4 S	RD 1/4WS 30.00K J	
R452		2232610095	RES,CBN 1/2	RD 1/2W 10.00 J	
R453		2235547303	RES,MTL 2	RS 2W 47.00K J	
R455		2233415495	RES,CBN 1/4 S	RD 1/4WS 150.00K J	
R456		2233415395	RES,CBN 1/4 S	RD 1/4WS 15.00K J	
R457		2233410495	RES,CBN 1/4 S	RD 1/4WS 100.00K J	
R458		2233439395	RES,CBN 1/4 S	RD 1/4WS 39.00K J	
R459		2239210015	RES,PRES 1/4 S	RN 1/4WS 1.00K F	
R460		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K J	
R461		2233430395	RES,CBN 1/4 S	RD 1/4WS 30.00K J	
R462		2233462295	RES,CBN 1/4 S	RD 1/4WS 6.20K J	
R463		2233415495	RES,CBN 1/4 S	RD 1/4WS 150.00K J	
R464		2233422395	RES,CBN 1/4 S	RD 1/4WS 22.00K J	
R465		2233422295	RES,CBN 1/4 S	RD 1/4WS 2.20K J	
R467		2233482395	RES,CBN 1/4 S	RD 1/4WS 82.00K J	
R469		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K J	
R470		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K J	
R471		2239236015	RES,PRES 1/4 S	RN 1/4WS 3.60K F	
R472		2233447195	RES,CBN 1/4 S	RD 1/4WS 470.00 J	
R473		2239214015	RES,PRES 1/4 S	RN 1/4WS 1.40K F	
R480		2233427295	RES,CBN 1/4 S	RD 1/4WS 2.70K J	
R801		2232682495	RES,CBN 1/2	RD 1/2W 820.00K J	
R802	RA	2229201212	THERMISTOR,PTH	SCK-103 10+-20% 3A THINKING	
R802	RB	2229400612	THERMISTOR,NTC	NTC UPPERMOST N10SP010***-K2	
R803	RA	2229301300	THERMISTOR,PTC	PTC 9+-20% PCA9ROS UPPERMOST	
R803	RB	2229301400	THERMISTOR,PTC	PTC 9+-20% DGC3R9ROM27A WALSLIN	
R804		2235518403	RES,MTL 2	RS 2W 180.00K J	
R805		2235518403	RES,MTL 2	RS 2W 180.00K J	
R806		2233410595	RES,CBN 1/4 S	RD 1/4WS 1.00M J	
R807		2233410595	RES,CBN 1/4 S	RD 1/4WS 1.00M J	
R808		2235622303	RES,MTL 3	RS 3W 22.00K J	
R809		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K J	
R810		2233410095	RES,CBN 1/4 S	RD 1/4WS 10.00 J	
R812		2235524803	RES,MTL 2	RS 2W 0.24 J	
R813		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K J	
R814		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K J	
R815		2233415195	RES,CBN 1/4 S	RD 1/4WS 150.00 J	
R816		2233422295	RES,CBN 1/4 S	RD 1/4WS 2.20K J	
R817		2235539103	RES,MTL 2	RS 2W 390.00 J	
R818		2233415395	RES,CBN 1/4 S	RD 1/4WS 15.00K J	
R819		2233415495	RES,CBN 1/4 S	RD 1/4WS 150.00K J	
R820		2235510103	RES,MTL 2	RS 2W 100.00 J	
R821		2233447095	RES,CBN 1/4 S	RD 1/4WS 47.00 J	
R822		2233468095	RES,CBN 1/4 S	RD 1/4WS 68.00 J	
R823		2233430395	RES,CBN 1/4 S	RD 1/4WS 30.00K J	
R824		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K J	
R825		2233475095	RES,CBN 1/4 S	RD 1/4WS 75.00 J	
R828		2235420195	RES,MTL 1	RS 1W 200.00 J	
R829		2235410495	RES,MTL 1	RS 1W 100.00K J	
R830		2233420295	RES,CBN 1/4 S	RD 1/4WS 2.00K J	
R831		2233443395	RES,CBN 1/4 S	RD 1/4WS 43.00K J	
R836		2233430395	RES,CBN 1/4 S	RD 1/4WS 30.00K J	

HP D8891A 14" Monitor chassis : JD144K-HP

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION	REMARK
R837		2235547103	RES,MTL 2	RS 2W 470.00	J
R838		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R839		2233430395	RES,CBN 1/4 S	RD 1/4WS 30.00K	J
R840		2232618195	RES,CBN 1/2	RD 1/2W 180.00	J
R841		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R842		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R843		2233422395	RES,CBN 1/4 S	RD 1/4WS 22.00K	J
R845		2232675395	RES,CBN 1/2	RD 1/2W 75.00K	J
R846		2239210015	RES,PRE 1/4 S	RN 1/4WS 1.00K	F
R847		2235468095	RES,MTL 1	RS 1W 68.00	J
R848		2233424195	RES,CBN 1/4 S	RD 1/4WS 240.00	J
R849		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R850		2233433195	RES,CBN 1/4 S	RD 1/4WS 330.00	J
R851		2233482195	RES,CBN 1/4 S	RD 1/4WS 820.00	J
R852		2239210015	RES,PRE 1/4 S	RN 1/4WS 1.00K	F
R853		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R854		2233418395	RES,CBN 1/4 S	RD 1/4WS 18.00K	J
R855		2233447195	RES,CBN 1/4 S	RD 1/4WS 470.00	J
R856		2233410295	RES,CBN 1/4 S	RD 1/4WS 1.00K	J
R857		2233439295	RES,CBN 1/4 S	RD 1/4WS 3.90K	J
R858		2233424195	RES,CBN 1/4 S	RD 1/4WS 240.00	J
R859		2233410395	RES,CBN 1/4 S	RD 1/4WS 10.00K	J
R861		2233424195	RES,CBN 1/4 S	RD 1/4WS 240.00	J
SW101		2403701200	SWITCH,PU-TC	P4.5*3P(REF SKHH33P920-SV FW)	
S401	RA	2406200500	SWITCH,LEVER	EVQ-ROB (PANASONIC)	
S401	RB	2406200600	SWITCH,LEVER	BGL-0131	HUA-JIE
S401	RC	2406200700	SWITCH,LEVER	TLF1X3	HORNG CHIN
S801	RA	2403104400	SWITCH,PUSH	SFDLB11C7u	FORWARD
S801	RB	2403104500	SWITCH,PUSH	SY16-12-2(u99S2)/T	NOBLE
S801	RC	2403104800	SWITCH,PUSH	ESB82137V	PANASONI
TP2		2431400300	TERMINAL	TERMINAL	
TP4		2431400300	TERMINAL	TERMINAL	
T401		2385502100	COIL,H LNR	LS-BL942-008	
T402		2385205900	FBT	FEA583	SAMPO
T402E		2097400301	EYELET	BSS3-1/2H T=0.25 SN 3 μ m	
T801		2374205900	XFORMER,POWR	JD144K 400UH 0.29 OHM	
T801E		2097400301	EYELET	BSS3-1/2H T=0.25 SN 3 μ m	
U001		2202104011	PC BOARD	JD144K MAIN 94V0 296*245 12.26	
VR301		2225150390	RES,SEMI FIX	0.1W B 50K N	
VR401		2225150191	RES,SEMI FIX	0.1W B 500 N TAPPING(V)	
VR404		2220112021	RES,V CBN 9	RK09K1110619(SV) 0.05W 10KB M	
VR405		2220112022	RES,V CBN 9	RK09K1110471(SV) 0.05W 10KB M	
VR406		2225130391	RES,SEMI FIX	0.1W B 30K N TAPPING(V)	
VR407		2225150391	RES,SEMI FIX	0.1W B 50K N TAPPING(V)	
VR801		2225110291	RES,SEMI FIX	0.1W B 1K N TAPPING(V)	
VR832		2225120390	RES,SEMI FIX	0.1W B 20K N	
X101		2369102701	XTAL,OSC	XTAL 8.0MHZ 30P/0.1mW	

OTHERS

L813	2379102000	FERRITE CORE	TR-11.8X7.3X15(J70)	MAGNET
L814	2379102000	FERRITE CORE	TR-11.8X7.3X15(J70)	MAGNET
P405	2427307012	LUG W/WIRE	0.12*120 380L	
P406	2427307012	LUG W/WIRE	0.12*120 380L	
P407	2427307012	LUG W/WIRE	0.12*120 380L	
P409	2427307012	LUG W/WIRE	0.12*120 380L	
P410	2422630004	LUG W/WIRE	UL1015#22(TM) 300L BLK 5:10	
P411	2427303003	LUG W/WIRE	120C/0.12 W 4.3 ϕ RING 100L	
P412	2427303002	LUG W/WIRE	64/0.12 W 4.3 ϕ T 100L	
P414	2427307014	LUG W/WIRE	0.12*144 100L	
P415	2427307014	LUG W/WIRE	0.12*144 100L	
GN901	2420102200	CRT WIRE	JD144J 0.12/64C 670L	
L899	2385403200	COIL,ERASE	JD144J 0.4X80T 1040L W AL MPR2	

HP D8891A 14" Monitor chassis : JD144K-HP

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION	REMARK
TU901		2211013900	CRT ASSY	M34AFA13X01U CPT	
P906		2427501072	I/O CABLE	D-15M/JWT*12(1029) 1.3M PC99	
PD801		2427130048	POWER CORD	INDIA WALL 1.5M	